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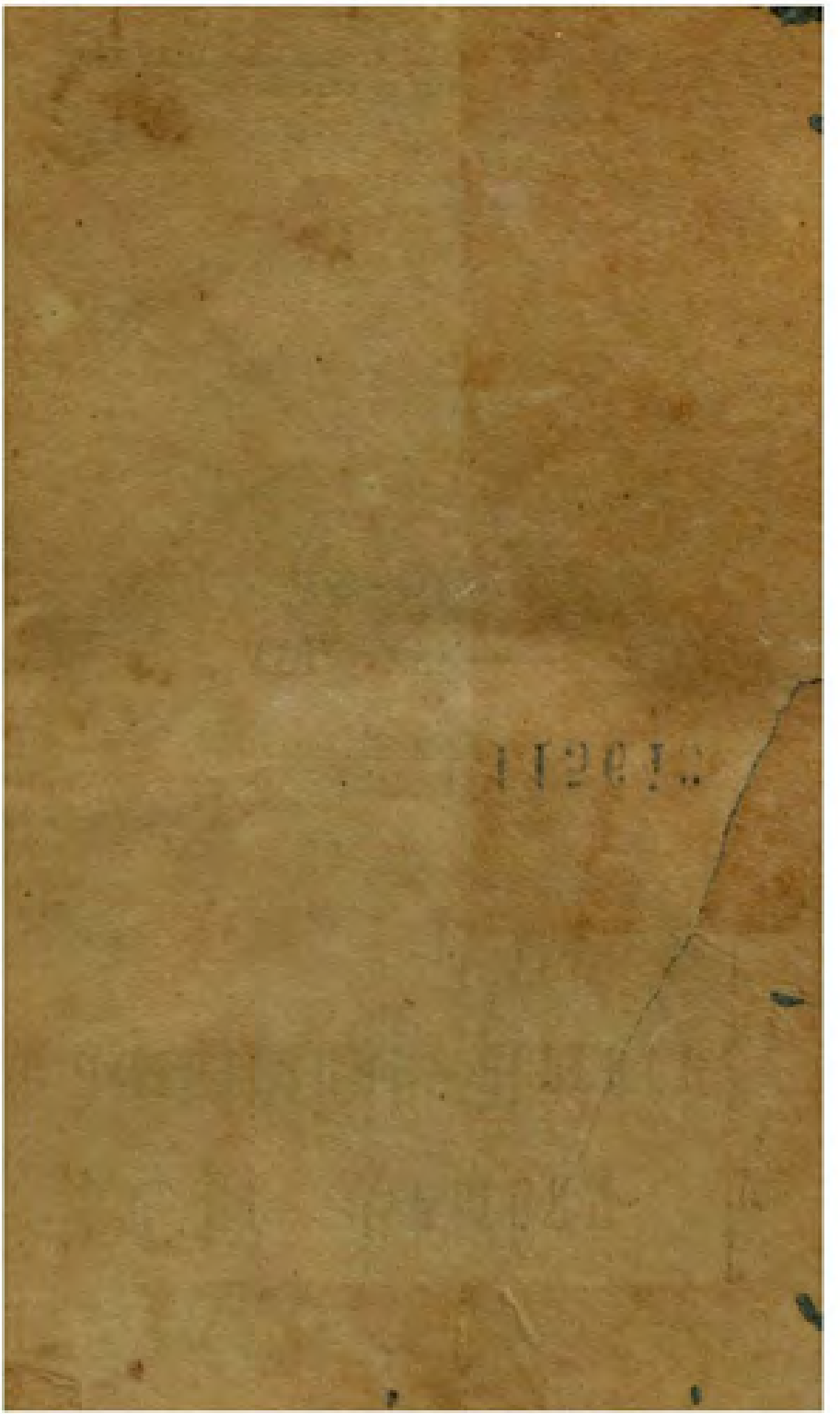

THE

Bombay Educational Record.

No. 2.] FEBRUARY 1, 1880. [Vol. XVI.

THE MONTH.

THE following remarks by the Minister of Education in Japan in his last annual report on the necessity for female teachers in any national system of education have attracted attention in England, and ought to set natives of India a thinking :—

"The education of children" says the minister "should be so conducted as to develop grace and gentleness in their manners and deportment. If they are brought up under the influence of the gentler natural qualities of female teachers, a much better result may be expected to be attained than if trained entirely by men. It may safely be said, therefore, that as the number of females being educated for teachers is increased, so the future happiness of the people will be promoted."

THE *Neue Freie Presse* makes the following comparison of the schools and school attendance in different European countries :— Germany, with a population of 42,000,000, has 60,000 schools and an attendance of 6,000,000 pupils; Great Britain and Ireland, with a population of 34,000,000, has 58,000 schools and 3,000,000 pupils; Austria-Hungary, with a population of 37,000,000, has 30,000 schools and 3,000,000 pupils; France, with a population of 37,000,000, has 71,000 schools and 4,700,000 pupils; Spain, with a population of 17,000,000, has 20,000 schools and 1,000,000 pupils; Italy, with a population of 28,000,000, has 47,000 schools and 1,900,000 pupils; and Russia, with a population of 74,000,000, has 32,000 schools and 1,100,000 pupils.

A YOUNG Lady Student of Girton College, Cambridge, has gained marks in working the papers of the Mathematical Tripos, which

would have placed her as Seventh Wrangler had she been a man. This is a remarkable achievement for a girl of 22 years of age. Two Lady Students of Newnham Hall have also done remarkably well in the Tripos Examinations—one being sole first in the Historical Tripos and the other fourth in the First Class of the Moral Sciences Tripos.

The University of Cambridge announces its first examination of teachers for certificates. The course of lectures by Mr. Fitch is pronounced to have been a great success, upwards of 100 students attending the course.

People fond of making comparisons may like to know the figures of the budget of the London School Board for the year 1880. The estimates amount in the aggregate to £653,000, showing an increase of nearly £50,000 on those of the past year, there being a rise of £32,000 in the cost of maintenance of schools, and of £18,000 for interest and repayment of loans, while on the other hand the estimate for Industrial Schools has decreased by £4,000. Mr. Freeman who introduced the budget explained that in future years a reduction of 15 per cent. would, he hoped, be made in teachers' salaries by a strict enforcement of the rule that "the unit of teaching power of the head teachers and pupil teachers shall be 30 children, and that of the assistants 60,"—a rule which has been so far modified in practice that the numbers have fallen to 25 and 55.

It is said that after Mr. Green has completed the enlarged edition of his "Short History of the English People," he will set to work on a large historical work to bridge over the period between Mr. Freeman's "Norman Conquest" and Mr. Froude's "History of the Tudors."

We present our readers this month with a Classified Contents and Title Page for our last volume—the fifteenth. The usual Annual Directory of the Educational Department will appear with our next number.

THE MATRICULATION EXAMINATION.

The Matriculation Class Lists were published this year in a new and improved form as follows :—

This Examination was conducted, as last year, at Bombay, Poona, Belgaum, Ahmedábád, and Karáchi. One thousand and ninety-three Candidates were examined.

The following is a statement showing the number of Candidates sent up from the various schools and by private tutors and the number of those who succeeded in passing the Examination :—

	No. of Candidates sent up.	No. of successful Candidates.
Elphinstone High School	87	50
Poona High School	48	30
St. Mary's Institution, Bombay	27	22
Fort High School	40	21
Ahmedábád High School	32	20
Rájáram High School, Kolhápur	26	18
Surat High School	27	18
Sir J. J. Parsi Benevolent Institution, Bombay	23	18
Káthiáwar High School, Rájkot	19	14
Free General Assembly's Institution, Bombay	20	11
Belgaum Sirdars' High School	21	10
Baroda High School	18	10
Bombay Proprietary School	31	9
Chandanvádi High School	31	9
Dhárvád High School	13	8
Nariád High School	8	8
Haidarábád High School	12	8
Dhuliá High School	10	8
Ratnágiri High School	17	7
Robert Money Institution	12	7
Amráoti High School	7	6
Broach High School	19	6
Bhávnagar High School	11	6
Poona Native Institution	20	6
Kárwár High School	9	5
Náráyan Jagannáth High School, Karáchi	11	5
Násik High School	14	5
Thána English School	8	5
Bishop's High School	8	5
Surat Mission High School	12	5
Ahmednagar High School	11	4
Bombay Scottish High School, Byculla	4	3
Ahmedábád Irish Presbyterian Mission High School	11	3
Sávantvádi English School	3	2

	No. of Candidates sent up.	No. of successful Candidates.
Sátárá High School	9	3
Bombay Private English School	16	3
Sángli English School	3	2
Shikárpur High School	6	2
Bahádurkhánji High School, Junágad	5	2
Alfred High School, Katch	5	2
Sir Cowasjee Jehanghier N. Z. Madrasa	7	2
General Assembly's Institution, Bombay	8	2
Poona Civil Engineering College	4	1
Sholápur High School	3	1
Navánagar High School	2	1
Bombay High School	13	1
St. John's School, Bándorá	3	1
Alfred High School, Bombay	8	1
Poona Mission Institution	7	1
Belgaum London Mission School	7	None.
Haidarábád Mission School	6	None.
Akolá High School	4	None.
Indore English School	1	None.
Haidarábád Engineering School	1	None.
Private Tuition	400	36
	1,093	436

Of the successful candidates 163 took Sanskrit as their second language, 47 Latin, 2 French, 2 Portuguese, 37 Maráthi, 121 Gujaráthi, 20 Canarese, 43 Persian, and 1 Sindhi; 317 were Hindus, 96 Parsis, 11 Europeans and Indo-Europeans, 11 Portuguese, and 1 a Muhammadan: 2 of the candidates sent up from the Bombay Scottish High School, Byculla, were girls, both of whom passed.

THE BURST OF THE MONSOON.

(*Concluded from page* 12.)

Thus the Matheran spur, which is continued westward in a line of basaltil pinnacle peaks, called Bhan Malleng, before finally sinking into the Arabian Sea, forms the bright little archipelago of palm islands which, joined together by the clay deposit of "the Flats" and the formation of shells heaped up by the waves of the South-West Monsoon along Back Bay, constitute the Island of Bombay, with its sea groves of cocoanut and wide grassy esplanade and glowing gardens of strange flowers; while at the other end of the spur, at Khandálá, 40 miles eastward from Bombay, we have the deep cleft or gorge in the Syhadri barrier, called the "Bhore Ghát," the only pass between Bombay and Poona. Between these points the

Matheran spur lies extended like a horse-shoe, thus determining the course of the Callian river, flowing under its northern declivities from the Bhore Ghât, past the ancient port of Callian, and mediæval port of Tannah, into Bombay Harbour, the great modern port of Western India. As in fact the Callian river silted up, the port had to be removed farther and further seaward. The southern declivities of the hill overlook the courses of the Panwel and Nagotna rivers. From all points one looks down, and back, and around on tremendous basaltic precipices, glittering waterfalls, wooded gorges, and irregular rugged spur; and above all the vast overhanging forest of Matheran, cool, green, and joyous with the song of birds, contrasted against the scarred and blackened ridge of Bhau Malleng. Far below lie the misty plains of the Callian and Panwell rivers, and beyond, westward, the Arabian Sea, and Bombay, in all its magnificence and commercial activity, lying in it, like a minnow one might take up out of the water in the hollow of the hand; and eastward the loom-line of the Syhadri Mountains, with the arches of the Bhore Ghaut Railway incline just visible through the loom. Such is the romantic physical and historical theatre of the burst of the Monsoon in Western India.

The grand spectacle of the phenomenon will be best described by the following extracts from observations made at Matheran of the burst of the Monsoon of 1865. It began on Monday, June 6, at 3-30 p.m., with sullen thunder in the north-west, where the clouds had all day long been rolling up in towering electric piles. As the clouds thundered, they moved slowly down through the Northern Concan, and gathered at 4 p.m. along the fantastically-jagged volcanic crests of Bhau Malleng. All along Bhau Malleng and northward the sky and land were filled with lurid clouds and shadows, and thunder, lightning, and rain; the Callian river flowing black as ink through a scene of the most striking desolation and gloom; while, all southward of this abrupt line of storm and shattered peaks and pinnacles, the whole country from Bombay to the Bhore Ghat was lighted up with a pure, serene light, which made it shine like the plains of Heaven. Every village, every hut, every road and jungle-track, even the bridge over the river at Chowk, came distinctly into view. The trees and groves looked magically green; and the light picked out the most hidden streams of water and made them glitter like threads of molten silver. The Panwell and Nagotna rivers shone like mirrors, and the Arabian Sea seemed ruled, so far as it could be distinguished from the sky, with lines of this vividly reflected sunshine. The contrast with the outer darkness around and beyond Bhau Malleng was almost theatrical. Suddenly, at 4-45, the storm-rack poured down over Bhau Malleng like a tumultuous sea, and rapidly moved into the profound valley between Matheran and Parbal, the wind blowing furiously, and the rain pouring in torrents, accompanied by the most awful peals of thunder and flashes of forked lightning. But when it had filled the

valley, the rain and the wind ceased and the storm stood still, and for one hour in that dead stillness (4-50 to 5-50 p.m.) the thunder and the lightning, both in horizontal and perpendicular bolts, raged without a single moment's intermission. The thunder mostly rolled from end to end of the valley, but sometimes seemed to explode in its midst like a shell, and with a force as if it would burst the bonds of the surrounding hills. The detonations were instantaneous with the bolts. Once in the dreadful stillness the thunder came with the sound of a terrific rushing hiss, although not a breath of air stirred the while. At 6 p.m. the storm again moved and passed slowly southward over Parbal towards Nagotna, and another enchanting scene was opened up in the Southern Concan. Every hut and tree and stream became preternaturally clear, the inundated rice fields and rivers flashing like steel, while fleecy clouds lay on every hillock and slowly crept up every ravine. Then, as the sun set behind Bombay, the whole scene became tinctured over with a glorious halo of soft golden light. The summits of the hills westward towards Tannah were lighted up with every hue of golden light, passing gradually into deep purple shadow, while the Callian river shone like burnished gold between them. It is impossible to describe the transient glory of this scene. Then, the moon rose and illuminated the fog, which had now gathered out of the ravines and off the hills, and formed a street which stretched across the calm, clear heavens from north to south, while high above it in the south, but seeming to lie from east to west, stood the black, embattled storm-rack towards Mahableshwur, belching forth flame and thunder the whole night long. The next day (Tuesday) passed off without a storm; but on Wednesday, the 8th, the sky was again filled with vast electrical cloud-banks eastward towards the Bhore Ghât. At 2 p.m., muttering thunder was heard from this direction, when the sky at once became black and lurid. At half-past 2 the storm moved westward, travelling in the opposite direction to its course on the 6th, directly on Matheran. A mist went before it, thickening as it went, first into trailing clouds and then a dripping rain, muttering thunder all the while. At 3 p.m. the valley between Matheran and Parbal was filled with the storm, which now began to thunder in long, reverberating peals, the lightning illuminating the dense fog in which it seemed to be generated with extraordinary splendour. Heavy rain accompanied the illuminated fog until 3-45 p.m., when a light wind suddenly swept it all off westward towards Bombay, and showed that a heavy rain had fallen all over the country. At 4 p.m. the storm seemed concentrated over Bombay. But just then another dense fog, but luminous as magnesium light, again filled the valley between Matheran and Parbal, and the distant storm could no longer be watched; but the newspapers of the next day, when they were delivered at Matheran, told us that on the previous evening the Monsoon had burst in Bombay.

Another year the Monsoon was ushered in, with a very picturesque

phenomenon. About 2 p.m. masses of cloud came along the plain from Khandalla on Matheran, and as in succession they rounded the high basaltic scarp of Chowk Point, exchanged regular broadsides of lightning and thunder with it. The sky was perfectly clear all the time, and the salutation between these clouds and the mountain was repeated for a day or two before the great burst. It was exactly like the bombardment of a great casemated fortress by a fleet of ironclads in full sail. Once the Monsoon burst without thunder. The clear sky suddenly turned black, and one universal solemn downpour began.

These appalling electric outbursts always end serenely. The storm clouds retreat like a drove of bellowing bulls, and their last echoes die away beyond the distant wall of mountains; the sun shines forth again in majesty; in every dell the delicious sound of running waters wakens life; the woods become vocal with the glad song of birds, and the heart of man is filled with an exalted joy in the contemplation of the sublime manifestations of that beneficent Power by which the face of Nature is renewed in perpetual youth and glory.

ESPRIT DE CORPS IN DAY-SCHOOLS.

A correspondent has favoured the *Journal of Education*, with the following notes of a discussion among a small private society of London schoolmasters:—

THE OPENER.—Of all our English institutions, the one that most strikes a foreigner, whether professional or unprofessional,—M. Demogeot or M. Taine,—is our public boarding-schools. With our great day-schools he is not likely to be impressed. France has lycées equal or superior to Merchant Taylors' School, or the City of London School; it has nothing exactly analogous to Rugby or Harrow. Wherein do these two classes of schools differ? What is the peculiar characteristic of the latter class which the former lack? In a word, it is *esprit de corps*. It is true that the State is founded on the family, and that public virtues must be based on domestic virtues; but, great as are the advantages of family life, it does not of itself produce patriotism. Life in large towns has now a tendency, not to bind citizens together, as in ancient Greece, but rather to foster individual or class interests. It produces not patriotism, but Jingoism. The true nurseries of patriotism are our public schools. It is an undisputed fact that Harrow and Rugby, and in a less degree their younger rivals, Marlborough and Wellington College, do produce, and that in an increasing ratio as their organization is elaborated, that enlightened *esprit de corps*, that generous public spirit, which is patriotism in miniature. If we try to analyse this *esprit de corps* of our public schools, we shall find that the main elements are—first, the self-government which finds its chief outlet in games, the weak side of which—crude athleticism and unintellectual shop—is more than counterbalanced by their strong side—their republicanism, and the

keen interest in the common welfare which they call forth. Secondly, the house system. A public school boy must be precociously philosophical or utterly depraved if he is not enthusiastic for his house. A friend of mine, whom I asked to meet you to-night, tells me that, having a grammar school of day-boys in B——, he has divided the town into houses, in order to create, or at least simulate, the Rugby house spirit. If it is true that the individual reproduces the life of the race, we may say that the division into houses is a reproduction of the primitive Aryan family.

In a day-school these elements, if they exist at all, must of necessity be feeble and rudimentary. I can only offer one or two hints as to the machinery by which we may hope to arouse *esprit de corps* among day-boys.

1. If there is anything characteristic about a school, if it gets a character for winning the Porson at Cambridge, or the Shield at Wimbledon, or the Geographical Society's Medals, boys soon get to feel a pride in their school, and to believe it the best of all possible schools. Such feelings should, if possible, be encouraged. 2. The personal influence of individual masters is all-important in promoting *esprit de corps*. I should recommend some distribution of boys among different masters, who shall stand to them in the same relation as housemasters in boarding-schools. 3. There is comparatively little scope for the monitorial system in a day-school; but, even though the duties and functions be limited, it deserves encouragement, for it brings together the aristocracy of the school, welds them into a corporate body, and enables them to influence public opinion. 4. School societies are an important agency for binding together groups of boys, and teaching them to act in concert. At my school we are honeycombed with societies,—choral, debating, natural history, &c.,—and their action is most wholesome.

On the other hand, games necessarily languish, and nothing can quite supply their defect. Our playing grounds are far off; the time for play is limited, and our matches are mostly foreign. We are delivered, it is true, from the bane of athletic "shop," but this gain is dearly purchased by the loss of the chief factor of *esprit de corps*. One may be bored to death at Harrow and Eton with talk of averages and "Lords," but I verily believe that few boys in my Lower School know the name of the captain of the eleven. Again, we miss the general assembly in Big School and Chapel. I have no opportunity of addressing the boys collectively, or appealing to them as an organized state, as Arnold or Temple did at Rugby. To sum up, I should say that in day-schools we have the elements of *esprit de corps*, but not the strongest elements.

Mr. Ibbs.—Believing in *esprit de corps* as firmly as the opener, I have done all in my power to promote it; and, though I cannot hope to rival the old foundations, with the traditions of centuries to build upon, I may, without boasting, say that I have, to a limited extent, succeeded. I am luckier than the opener, in having a hall

where I can collect the whole school, and, in fact, I don't see how I could get on without it. Once a week, in a very informal address, I review the doings of the week, notice any distinctions gained either in class or games, and pitch into any misdemeanours, and specially any lack of public spirit. No rewards or punishments are half so effective as this public notice.

As to games, I've found the same lack of interest as the opposite. They want constant organization and whipping-up on the part of masters, and even then I found that boys would not turn up for important matches, alleging as an excuse a tea or lawn-tennis party at home. But a little gentle chaff administered in public, has done much to diminish this *lâcher*. Then, as to monitors—I have greatly extended the system, appointing monitors for each form, with small duties and privileges attached to the office, which is conferred for good conduct and good work combined. Four boys in each form act as monitors for a week in turn, the list is hung up in the class-room, and to fall from the monitorial ranks is felt to be a public degradation. The essence of *esprit de corps* is self-sacrifice, and the most valuable lesson that a boy takes away from school is that he lives not for himself, but for others. Such a lesson I believe that even day-schools can give.

MR. RAE.—Perhaps it is my own fault that my experience differs from Mr. Bobi's. If you will excuse my egoism, I will tell you shortly what I have found myself. I came to London from W—— some four years ago, a firm believer in day-schools. Like Sydney Smith, I thought that education must be the best which mingles a domestic with a school life, which combines the emulation and discipline of school with the affectionate vigilance of home. I thought I should exchange the morbid athleticism of a public school for the intellectual activity that a great city is supposed to give, that I should find parents who cared more for their boys' marks than their score at cricket, and more for their moral and mental culture than for prizes and scholarships. Four years have taught me my error. I have found less athleticism, and also far less intellectual activity and love of knowledge for its own sake. In fact, I have fled from ills I had to ills I knew not of. Take the parents:—My old chief used to say that at W——we were heavily handicapped by the fact that more than half our boys came from country parsonages, where the talk is of nothing but butcher's bills, beeves, and blankets. I wish he had to deal with my present *clientèle*—the higher class of London shopkeepers, and the lower class of London professional men. He would have pronounced the country parsonage comparatively a focus of culture. One instance:—As a house-master at W——, in writing a boy's character, I was careful to weigh every word, knowing that a hint of dissatisfaction was likely to entail a full explanation, and possibly a correspondence. Now I am driven by the indifference of parents to strong language, and I find that I may call their sons idlers, loafers, "stocks, stones, worse than ass-

less things," without provoking a rejoinder, or producing any perceptible effect. If I set a copy of verses from Tennyson, or even Milton, if I refer them to Hume, or even Macaulay, I find that not one boy in twenty has the book at home. Take the boys themselves:—From what I had heard of Walker at Manchester, and Abbott at the City of London, I fancied that I should find the town boy argumentative and hard to manage, but sharp as a needle, voracious of knowledge, and only wanting the curb or the drag. I have found him as quiet as a lamb, and as (let us say) ovine. In natural ability and in industry he is about on a par with his country cousin; in originality, in self-dependence, in "go," he is nowhere. Let me give an instance or two:—When I came to X——I found the sixth form library in a disgraceful condition; there was no catalogue, of half the books volumes were lost, books were taken out at discretion—one boy told me he should require three cabs to bring back all the books he had borrowed; half the subscriptions were in arrears; and ices all round were periodically voted out of the library fund. I took the matter in hand, made a catalogue, collected subscriptions, sold off the rubbish, and managed the library for a year. At the end of that time I handed over the balance to the head of the school, and told the form they must manage their affairs for themselves. At the present moment things are very much *in statu quo* as they were four years ago. I need not go into details, but it is the same story with the debating club and the school magazine. As long as they were bolstered up by masters they throve; directly the masters left them they collapsed.

Take the masters themselves:—London attracts good men, and here there is plenty of energy, especially among the juniors. But, as a rule, only half this energy goes into school life. They are not over-well paid, and nearly all have some outside interest—church work or literary work, or private pupils—which absorbs a large portion of their time and thoughts. They fulfil my old chief's ideal of a bad master,—"One who, when four o'clock strikes, puts his hands in his pockets and whistles;" or, rather, they are like clerks in a government office, who write novels or manage stores. Again there is little *solidarité* among them. Masters' meetings are unknown, and the only opportunity for intercourse is the stray five minutes in the Common Room between hours. Their homes are scattered from Hampstead to Camberwell, from Acton to Teddington; and their wives meet once a year, on Speech-day. Lastly, take the games, which, as the opener said, are the back-bone of public-school life, the *fons et ore et esprit de corps*. Wherever there is a prize to be won, at sports or fives, I find our boys are keen enough; but to get up an eleven at cricket or football is [illegible]. Without the management and subscriptions of masters there would be no cricket, no football, no boating club.

I'm not a pessimist, and I don't despair of day-schools in the next generation, when we shall have educated the parents. I have put

in all the shadows, and had meant to add some lights to the picture; but I prefer to stop, and leave it to others to suggest strong remedies for strong, but not, I believe, incurable evils.

Dr. MÜLLER.—If day-schools were in so bad a case as our friend has represented, I should prescribe *euthanasia*; but, if I am not mistaken, he has purposely exaggerated the bad symptoms in order to frighten us, and make us look more closely to our health. But I am willing to accept his diagnosis, and prescribe as best I can. I will take his last point first. Games, I allow, will never flourish in London as they do in the country—in day as they do in boarding schools. Apart from the difficulties of place, there are insuperable difficulties of time. But a boy does not live by cricket and football alone; there are other games and quasi-games, which, if not the real thing, are, like Keiller's marmalade, an excellent substitute. There are gymnastics, and it seems to me a monstrous thing that, while every large public school in the country has now its properly organized gymnasium, there is not, as far as I am aware, a single school gymnasium in London. [The Opener: We have a swing and parallel bars.] The same applies to volunteering. By help of railway there are butts as near London schools as the butts at Harrow and Marlborough, and yet not a single London school sends a team to Wimbledon. There ought to be no difficulty in providing for both these wants. Our Governors are City Corporations, ignorant and slow to move, but not illiberal. They have been brought up in the old-fashioned belief that education consists of schooling pure and simple. But they are zealous for the honour of the school, and if it were pointed out to them that Harrow, Eton, &c., all had their gymnasiums, they would be fired to follow their example. As to cadet corps, we have only ourselves to blame. It's idle to expect boys to take the initiative. In every public school masters have begun by starting and officering the corps. If I were twenty years younger, I would engage to take an eleven to Wimbledon next June. But I have a more drastic remedy to propose, and I am afraid that our patient (the governing body) will wince at it. It is nothing less than a surgical operation; but unless he consents to undergo it, I am convinced that the school will never enjoy sound health. I propose to cut off at a swoop one quarter of the school hours. London boys have, on an average, about a fifth more school hours than boarding-schools. I would reverse this order, and give them about a fifth less. And the way I would do it is this, change the hour at mid-day allowed for dinner to two. The school hours would then be nine to twelve and two to four, which, with two half-holidays, gives 26 hours a week. For the sixth form, and for special objects, I would make still further remissions. The advantages of this reform are so obvious, that I need only glance at them. Nothing will generate *esprit de corps* like the healthy friction of the playground. Boys could have lives, racquets, punt-about, &c., without ruining their digestion. They would have time for organising the debating club

the school magazine, the glee club &c., and would soon develope powers of self-government, and constitute a state, a genuine school republic. Nor do I believe that the regular work would suffer. The half is often more than the whole, and an English Public High School girl does more work in her twenty hours a week than her French sister in forty.

Mr. Morrison.—You will all think me an arch heretic, but I venture to dispute the major premiss on which you have all based your arguments, though it has led you to very different conclusions. Is *esprit de corps*, after all, an unmixed good? Is it not in part generated by aristocratic exclusiveness and class prejudice? I read the other day an essay on the much-abused word "gentleman," which began, "A gentleman must have been educated at the University, or at least at one of our great public schools." Would not Thackeray have put the author of this sentiment among his snobs? The opener contrasted *esprit de corps* and Jingoism. To me they seem to have an element in common, the spirit of brag and bluster. Don't for an instant suppose me to deny that a school must be corporate body, animated by a corporate feeling. I remember once telling my boys, when they had shown a lack of public spirit, "You don't deserve to be called a school, you are a fortuitous concourse of atoms." But we may have too much of a good thing, and we may purchase it too dearly. My experience, I am thankful to say, does not agree with Mr. Rab's. A third of my boys, I should say, come from cultured homes, and in nine cases out of ten I find home influences healthy and helpful. In this way a day-boy gains more than he loses. It is true he values school less but he values home more. I have only two suggestions to offer. Try to keep up the connection with old boys, by making much of distinctions gained by them, by inviting them to school speeches, concerts, &c., by clubs like the Old Pauline Club. Encourage in every way *solidarité* and professional feeling among masters. I would never allow one of my masters to be a city curate, much less a city rector. Private pupils outside the school should be discouraged, though I fear with present salaries it would be found impossible to forbid them.

The Greeks and Romans were educated in day-schools, and though in England boarding-schools can never be superseded, day-schools are certain to grow, if only from economical causes, and I see no reason why they should not be at least as effective instruments of education as boarding-schools.

"THE STUDY OF LANGUAGE AS A SCIENTIFIC DISCIPLINE."

I [illegible] have some misunderstanding, if I frankly avow at the outset that my purpose in bringing this subject before you is to a great

extent, a controversial one. My treatment of the subject will throughout have reference to a point which is still being eagerly disputed, namely, the expediency of retaining the study of Latin and Greek, or of one of them, in an ordinary school curriculum; and my immediate endeavour will be to rebut, in a more systematic manner than was possible in a few observations thrown out in a brief discussion, the views on the study of language in general, and of Greek and Latin in particular, which have been set forth by Professor Bain, in his work on Education, and were recently urged upon you by him in a paper read in this place.

I need hardly tell you that, in the discussion about the educational value of Latin and Greek, there has been a great deal of random talk on both sides. Enthusiastic advocates have pushed the claims of classical culture to an altogether absurd point. Many who take less extreme views, have defended the retention of the Classics on grounds which can only hold good of a very extended course of study, reaching in duration far beyond the ordinary school age. Many very eloquent and very true things have been said about the value of an intimate acquaintance with Greek literature, and the importance of Hellenic culture as the supplement and corrective of Hebraic. These may furnish admirable reasons why those who have means and leisure should pursue the study, but do not make it clear why this particular study should be entered upon by Tom Smith, who will go to business by the time he is 16, and while these splendid results are still in the blue distance.

But the extravagancies of those who would exclude Classics altogether, because (as they allege) they are "of no use," are quite a match for anything on the other side. Jeremy Bentham gravely proposed to include in an ordinary school curriculum the art of rat-catching. Herbert Spencer would have little boys and girls of 14 instructed in their potential future duties as papas and mammas; and I think the first comment of a thoughtful and experienced practical schoolmaster on Prof. Bain's "renovated curriculum" would be a protracted whistle. It suggests Sydney Smith's difficulty as to how a certain exceedingly stout lady was to be embraced, unless she were taken in successive sections. If a youth had three or four school and college lives, he might, perhaps, overtake his tasks and, I venture to add, be a very one-sided and half-educated man after all.

I have no intention of even attempting to go over the whole ground of controversy; but there is one point that forms the key of the classical position on which Professor Bain has opened a fire which is intended to make the whole position untenable. The advocates of classical instruction in ordinary schools have maintained that it furnishes a most valuable mental training. If it can be shown that this claim is baseless, that the study furnishes the feeblest possible exercise for the understanding, while it taxes and exhausts the memory, it is plain that the advocates of

classical teaching in ordinary schools leave not a leg to stand upon. This is what the Professor maintains; and what I, in turn, shall try and make clear is, that his view of the matter is quite erroneous.

I take leave to say, in passing, that the present position of the argument on behalf of classical studies does not "resolve itself into the necessity of proving the transcendent, ineffable superiority in the circumstances attending the combination of Latin and Greek." As a matter of fact, there is no one invariable system that can be called the present system. Many schools teach both; in others Latin is taught to all, and Greek to a few; in others Latin is taught but no Greek, and this not because the superiority of a combination of Latin and Greek is not admitted by those who teach Greek but little, or not at all, but because unavoidable circumstances render it impossible to teach both with effect and profit. Nay, there are advocates of classical study who will readily say, "Give up both if you must only let the *need* be made indisputably clear." Against even the moderate advocates of classical studies, however, it is clamorously asserted in many quarters that it is a piece of obsolete folly to retain *either* Greek *or* Latin in an ordinary school curriculum. To this outcry Professor Bain has lent the whole weight of his authority, and the whole aim and purpose of his actual arguments is to show that the outcry is justified.

Let me also point out that the whole case for the retention of classical studies does not collapse, even if it be proved, in opposition to "the supporters of the present system," that their claims are maintained on untenable grounds, and that there is "no special efficacy in their work—nothing that may not *equally well* be done in other ways." Such an argument is something like this:—*A* and *B* advocate different routes for going to a given point. *A* says, "My way is far the best and shortest of all; therefore everyone ought to take it." "No," says *B*, "I can show that other ways are equally good and equally short; therefore no one ought to take yours." "Take which you please," would be the sounder conclusion.

As regards the training power of language study, Prof. Bain has expressed himself to the following effect. He says:—

"The exercise of learning a language resolves itself into learning vocables and their meanings, conning grammar, and translating." "To learn grammar is to understand certain rules, and to apply them as the cases arise." "The translation exercise is a tentative process. The meanings of the separate words have to be ascertained, and out of several meanings of any one word a selection has to be made such as to give sense along with the selected meanings of the others. Various combinations have to be tried, until some meaning is hit upon which resolves the difficulty. The application that this requires is the application needed to solve riddles and conundrums." "It is, moreover, generally admitted that the use of *cribs* does away

with the good of the situation as regards translating into English." (*Education as a Science*, pp. 367—370.) "By far the largest part of the acquisition of language is simple memory." The scientific part—the grammar—"is only a small corner of reason in a vast domain of memory." "The memory is the great thing in language, and the understanding the small thing." "The generalizing process may be evaded by a good verbal memory." "The arts and refinements of language teaching are all aimed at easing and assisting memory. There are points here and there to exercise the reason, but the more effectually the memory is stored with vocables and their meanings, the less need is there for any other faculty."—(*Educational Times*, July, 1879.)

Now my own life-long experience as a learner and teacher so flatly contradicts this view of the matter, that statements like the above fill me with the same sort of curious wonder that I should feel if a man declared that he had walked through Cheapside to-day at noon, and had met with a man only here and there. But just as a man may be led blindfold through the streets, and only become conscious that there are moving men about him by an occasional and unwelcome collision, so it is possible to do something called teaching Latin in such a fashion that the memory *shall* be the great thing and the understanding the small thing. I can quite readily believe that the method of going to work described by Prof. Bain is a record of personal experience, even down to the "cribs." I frankly admit, too, that the style in which Latin and Greek have been too commonly taught in past years, and are too commonly taught even now, is so perverse and irrational as to give the enemy ample occasion to blaspheme. Thousands and thousands of unhappy children have been made to begin by learning that stupid old Eton Grammar by heart before they understood the structure of the simplest Latin sentence, and have been then turned loose, with a dictionary, into Ovid or Vergil, to guess at the sense as they would at a conundrum. This is as though a teacher of Chemistry should begin by making his pupils learn the names and atomic weights of all the elements, and commit to memory a description of their properties and those of their compounds, before they had seen a single experiment, or handled a single chemical substance, and should then set them to analyse a lump of mineral ore by the aid of a set of analytical tables.

My object to-night is to show that, whatever may be true of the sort of work described by Mr. Bain—and he is welcome to knock it about as much as he likes—he is quite wrong in trying to make us believe that language study has nothing better than this to offer. I shall try to show that there is a better method of going to work; and that, with right methods, the study of Latin and Greek furnishes a scientific discipline, remarkably varied, exact, and fruitful: that it has some advantages that do not exist elsewhere, and achieves some valuable results peculiar to itself; and that there are still

reasons for retaining the study of at least one of what are improperly called *the dead** languages in the curriculum, even of a boy who must leave school when 16 or 17 years old, and has no chance of the still larger but remoter benefits that are rightly claimed for the completer mastery of those tongues.

I suppose we shall all be agreed that the teacher's work should be mainly directed to that which is not likely to be done properly without his help; that the training and discipline of the faculties is of paramount importance in school work, and must take precedence of the mere acquisition of knowledge; that it is the former in which the pupil most needs guidance, while the trained mind may be safely left to acquire knowledge by itself after the pupil has passed from under the master's care. The educational value, therefore, of any course of school study is determined mainly by its disciplinary effects, and not by the utility of the applicable truths which may be stored in the memory. Hence we rightly judge that Geometry is of such enormous importance, notwithstanding the large amount of time spent in demonstrating truths which the learner never doubted, and in mastering propositions which not one person in ten thousand ever has occasion to apply in practice. It is this *disciplinary value* of science-teaching which is mainly urged, and rightly urged, as the ground for making it part of a good school curriculum. Moreover, the value of this mental discipline does not depend upon the bigness of the phenomena dealt with, but upon the degree in which they furnish occasion for *the methodical exercise of the understanding and reason in the investigation of them*. This is what I mean by *scientific discipline*.

Now, in opposition to the idea that the study of a language is scarcely anything but an exercise of memory, and that, if the understanding is used at all, it is mainly to help the possible infirmity of that faculty, so that the more you can remember the less you need think, my position is just this, that any cultivated language, and Latin or Greek in a degree far beyond any modern language, presents a vast aggregate of related and mutually interdependent phenomena,—phenomena which lie very close to our own intellectual life, being the product, and a most extraordinary product, too, of those very thinking forces which in our conscious existence we are incessantly calling into action. The elements that compose this aggregate present endlessly varied combinations, and the most subtle and unexpected affinities, linking themselves at every step with the movements and necessities of our processes of thought. I maintain, further, as an obvious truth, that such an aggregate of phenomena

* No stage of a language which has a continuous and still progressive development can rightly be called *dead*. The older forms of Greek and Latin live in Romaic Greek and Italian, just as the English of Alfred lives in the English of to-day. It is rather amusing that those who sneer at the study of dead languages think it quite rational and philosophical to study the fossil remains of extinct animals of which not a solitary descendant remains.

must admit of being investigated on scientific principles, with the application of logical methods, and the constant exercise of observation, of minute attention, and of delicate discrimination; that the relations and laws which underlie and explain the facts admit of being reasoned out, and not merely "conned," from a book; that, in fact, the study is capable of giving as thoroughly scientific a discipline as Chemistry or Physiology.

When I speak of the scientific teaching of language, I mean teaching a language by the application of those principles and methods which a good teacher would adopt with such a subject as Chemistry. How does such an one go to work? He proceeds throughout upon the principle that facts come first, and explanations and generalizations afterwards. He never gives the latter, except in presence of the former. He makes his pupils *observe* that carbon, sulphur, &c., burn in oxygen, and do not burn in nitrogen or carbonic acid, before he gives them any generalizations upon the subject; and when he does give them these, he makes them see how the observed facts are logically related to the general law. He begins with the simpler phenomena, and proceeds gradually to those that are more complex. He makes acquaintance with facts, and deduction of general laws proceeds *pari passu*; he does not put all his facts first, and all his laws afterwards, but as soon as a set of facts lead up to a general law, facts and law are brought together, and he will gradually show how, in many cases, two or more generalizations are merged in one still higher; and all through he brings out before the mind of his pupils that phenomena occur, and because there is some arbitrary and inexplicable law that they shall occur, but because the various elements dealt with have definite properties, and that chemical phenomena are the exhibition of those properties in action. All this is a constant application of inductive methods, and yields a mental discipline of high value. What I contend for is, that Latin or Greek may be dealt with on similar principles, and that the study will then yield similar fruits. For the sake of convenience, I shall draw my illustrations from Latin alone.

In teaching Latin, then, the scientific teacher proceeds upon the same lines. Grammatical facts and grammatical laws are made to go hand in hand. As soon as inflexions are learnt, the learner is led to observe their functions in actual use. Just as the chemist begins experimenting with two or three simple substances, the scientific language teacher begins with the simplest elements and forms which admit of being united into an intelligible whole. When these are well understood, the functions of new forms are dealt with, and so on till the properties of all the common elements of language are mastered in their simplest uses. Then more complex combinations are dealt with, and wider generalizations arrived at, the learner being led to see throughout that grammatical forms *mean* something, and that the reason of their use is to be arrived at by finding out

what that meaning is, and not by appealing to some occult, mechanical power called *governing*; and, to bring into sharper relief what he is trying to make clear, the teacher will avail himself of the resemblances or contrasts offered by cognate phenomena with which the learner is already familiar, whether in Latin or in his own language.

Now, some of you may say, "That is all very fine, and may be very true; but at present it is just a trifle vague." Well, you will not expect me to give you here and now a complete *vade-mecum* of scientific method, but I will try to give one or two illustrations to show what a quantity of mind-training can be got out of grammatical phenomena. The process may begin at the very outset. The mere relations of subject and predicate give us something to begin with. Call the learner's attention to various specimens and forms of the simplest sentences that he can have in Latin. A few well-directed questions will lead him to contrast Latin and English. He will see the greater fulness of the inflexional system. The single word *amo* or *amat* may be made to teach him how subject and predicate may be wrapped up in one word. A very young learner may thus arrive at the real function of a personal suffix, and understand that it is nothing more than a pronoun in disguise. Again, place before a beginner the sentences *Nauta laudat poetam* and *Poeta laudat nautam*, with their English equivalents. The pupil will be made to use his eyes, and see that the altered relation of the ideas is accompanied by a difference of form. (Does he do anything much more wonderful than this when he notices that two different reagents produce precipitates of different colour in the same fluid?) Already he sees that Latin is not quite like English in the way in which nouns are dealt with. He will next be made to see that the Latin words yield the same grammatical construction in whatever order they may be arranged. He has already got his first lesson in the important fact that in Latin *form* must be his guide to *function*, and that in making out a Latin sentence he will have to dispense with the leading-strings of the familiar order of words in English. By what logical process does he get at this? By seeing, on comparison of various instances of the occurrence of a certain phenomenon, namely, the use of an accusative case to mark the object, that a circumstance which his English experience might have led him to suppose was an inseparable condition of the phenomenon, namely, a particular arrangement of the words, may be entirely eliminated. If this is not a simple application of inductive reasoning, what is it?

Did time permit, I might give you scores of similar examples of the way in which the budding intelligence even of the young beginner may be brought to bear upon the examination and comparison of elementary grammatical phenomena, so that he shall not merely understand, but actually work out for himself, the primary generalisations to which they lead. But let us look at a somewhat higher exercise of intelligence.

At some later stage in his studies, the learner will be introduced to such expressions as *Ex Romam, Adibo hominem, Servus in templum currit.* He finds that the presence of a transitive verb is not essential to the occurrence of this phenomenon—the use of an accusative case. On comparing the various groups of facts associated with use of the case, he finds that there is one circumstance, and one only, that is common to all, namely, that the direction of an action towards the point indicated by the noun in the accusative has to be expressed. Herein, then, he finds an explanation of the use of the case. It seems to me that this is marvellously like induction by the method of agreement. Well, Latin Grammar is full of this sort of thing; that is, when so studied as to conduct the intelligence through the processes by which general laws are deduced from particular instances, and not degraded to the "conning" of a set of rules.

Our young student, however, has not yet got to the bottom even of the accusative case. When he comes to examine further such phrases as *Decem annos vixit*, or *Tria millia processit*, and many others, a new application of his inductive processes will lead him to see that his generalization is not yet quite wide enough, but must be included in the still wider one that the accusative marks "the scope or range of an action or attribute." He will now be able to co-ordinate a large variety of special rules, and see why he always finds the accusative in company with the prepositions *ad, per, trans*, &c., and never with *ab*, or *ex*, which may denote the starting point of an action, but not its range. Surely there is admirable exercise for the intelligence in thus, by strictly logical processes, carrying up limited and provisional generalizations into such as are higher. It is that which all science struggles to achieve, and when achieved regards as its highest glory.

There will be similar practice for the intelligence in dealing with the other cases. Take the genitive for instance. The beginner will naturally first make his acquaintance with the case in its possessive sense. But when he has compared *pueri liber* with *pueri sors*, and *mortis timor*, &c., he finds that the idea of ownership must be widened into the more general conception that the one thing *has a relation of some sort* to the other, by marking which the noun in the genitive, like an adjective, *specializes* and limits that for which the other noun stands. This is, in fact, the import of the Greek name for the case, which the Romans mistranslated by the word *genitivus*. Now that his intelligence has been brought into play, he will discard the stupid old rule, that the latter of two nouns not standing for the same thing is put in the genitive—a rule which certainly makes no demands on the understanding, because there is absolutely nothing in it to understand, and which, in fact, puts the cart before the horse. A noun is not put in the genitive case because it is the latter of two nouns; it is the fact of its being in the genitive, and so expressing an attributive idea which enables it to be made the

latter of two nouns; just as certain words do not become adjectives by being attached to nouns, but admit of being attached to nouns because they are adjectives. Nay, the young student will in time carry his generalization still higher, when he finds that the presence of another noun is not necessary for the use of the genitive, but that, as one thing may have a relation to another by virtue of its qualities and actions, the genitive may come after an adjective or a verb. The functions and uses of the dative and ablative will give similar practice. Actual examination and comparison of instances will be throughout the basis of the learner's knowledge of their functions. He will begin with the easiest and commonest, and advance, with advancing study of the phenomena, to wider and wider generalizations, till something is arrived at which includes all the various special instances.

In the course of this process the young student can hardly have failed to become aware of a fact of the very highest importance, namely, that a very large part of what we call the *meaning* of a sentence is not conveyed by the words and forms, but is infused into it by the intelligence of the hearer or reader. It consists of a number of accessory notions by which the *bare meanings* of words and forms are implicitly *differentiated* into special applications in the mind of him who uses them, and which are suggested to the intelligence of the hearer or reader by the context. Take a familiar instance. Compare "he broke his leg," "he broke the bank," "he broke his word." We say commonly that "broke" has here three distinct meanings. Now, if "broke," of and in itself, could convey each of these meanings, we should know what the user of the words meant as soon as we got the words "he broke." But this is plainly not the case; it is only after hearing the word "leg," or "bank," or "word" that the requisite *accessory notions* flash upon our intelligence. It is just the same with grammatical forms. The wide variety of uses to which they can be put arises from the fact that, in and by themselves, they do not convey the whole of any one of their so-called *meanings*. They convey only something much wider and vaguer. It is the intelligence of the hearer or reader that supplies the differentiating notions.

(*To be continued.*)

GOVERNMENT CENTRAL BOOK DEPOT.

List of New Books received into the Government Central Book Depôt, Bombay, from 16th December 1879 to 15th January 1880.

Fresh supply received from England.	Rs.	a.	p.
Laurie's' Copy Books Nos. IV. and XII., each	0	1	4
Curtis' Outlines of the History of England	0	4	0
Shakespeare's Julius Cæsar, with Notes by Hunter.....	0	8	0

	Rs.	a.	p.
Webster's English Dictionary, Unabridged, Pictorial edition, with appendices	15	12	0
Roscoe's Chemistry (Science Primer series)	0	6	0
Holden's Anatomy	8	0	0
Balfour Stewart's Physics (Science Primer series)	0	8	0
Tanner's Agriculture (Ditto)	0	8	0
Bright's History of England, Personal Monarchy, Henry VII. to James II.	2	8	0

New Books published by the Department.

MARATHI.

Bapat (G. S.)—Nitimandir; or Mansion of Morality	0	10	0

GUJARATI.

Mahipatram Rupram—Rasayana Vidya (No. II. of Science Primer series), being the translation of Roscoe's Chemistry	0	10	0

KANARESE.

Sanskrit-Kanarese Roots, by the Kanarese Translator	0	7	6

New Editions published.

MARATHI.

Lotalikar (V. B.)—Jamakharchachi-Paddhati; or the native method of Book-keeping, 4th revised edition	0	3	0

Books purchased for Sale.

ENGLISH.

Cunningham's Sanitary Primer	0	1	0

GUJARATI.

Navalram's Vyutpattipatha; or a Manual of Gujarati Etymology	0	10	0

Government Publications for Sale.

Rules for the Examination in the Native Languages, by the standard known as the Interpreter's Test	0	0	6

DEPARTMENTAL NOTICES.

Reports on Entrance Examinations.

No. 4610 of 1879-80.

Poona, Office of the Director of Public Instruction,

14th January 1880.

TO THE HEAD MASTERS OF HIGH SCHOOLS IN C.D., S.D., AND N.E.D.

SIR,—With reference to this Office No. 5969, dated 26th February 1879, I have the honour to request that in future you will send

your reports on the Entrance Examination of the High Schools to the Educational Inspectors, instead of to me.

I have the honour, &c.,

(Signed) K. M. CHATFIELD,

Director of Public Instruction.

Published for the information of Educational Officers in the Central Division.

T. B. KIRKHAM,

Acting Educational Inspector, C.D.

Poona, 26th January 1880.

Public Service Certificate Examinations.

NOTICE

Is hereby given that Candidates for the Public Service Examinations [Vth Anglo-Vernacular (First Class) and VIth Vernacular Standard (Second Class)] will in 1880 be examined in a Sanitary Primer, approved by the Government of India. Certificates will not be issued to Candidates who pass in other subjects but fail in the Sanitary Primer.

2. Copies of the Primer in English are available at the Central Depôt, and translations in Sindi, Gujarâti, Marâthi, Kanarese, and Hindustâni, are under preparation.

3. The Sanitary Primer is to be taught in every Government School teaching Anglo-Vernacular Standard V. or Vernacular Standard VI., and in all Government Normal Colleges.

K. M. CHATFIELD,

Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
22nd December 1879.

Published for the information and guidance of Educational Officers in the Central Division.

T. B. KIRKHAM,

Acting Educational Inspector, C. D.

Poona, 28th January 1880.

Public Service Certificate Examinations.

NOTICE.

Notice is hereby given that Candidates for the Public Service Examinations, V. Anglo-Vernacular Standard (1st Class) and VI. Anglo-Vernacular Standard (2nd Class), will in 1880 be examined in Dr. Cunningham's Sanitary Primer approved by the Government of India. Certificates will not be issued to Candidates who pass in other subjects but fail in the Sanitary Primer.

2. The Sanitary Primer is to be taught in every Government or aided School teaching Anglo-Vernacular Standard V. or Vernacular Standard VI. and in all Government Normal Colleges.

G. BÜHLER,

Educational Inspector, Northern Division.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT, FROM 16TH OF DECEMBER 1879 TO 15TH JANUARY 1880.

16*th December* 1879.—Five days' leave, without pay, is granted to Mr. Mahomed Virji Patel, Hindustani Teacher, Poona Camp First Grade Anglo-Vernacular School.

17*th December* 1879.—One year's leave, without pay, is granted to Mr. Shridhar Mahadeo Kale, Eleventh Assistant Master, Poona High School.

18*th December* 1879.—Mr. Chintaman K. Bodkihal is appointed Acting Sanskrit Teacher in the Belgaum High School, *vice* Mr. Chatre, on leave.

18*th December* 1879.—Mr. W. K. Vaidya is confirmed in his appointment as Assistant Deputy Educational Inspector, Thana Sub-Division.

22*nd December* 1879.—Mr. Damodhar Balkrishna Dholekar, is appointed substantive *pro tem.* First Assistant Master in the Rajaram High School, Kolhapur, during the absence of Mr. Kolatkar or until further orders.

29*th December* 1879.—Three-a-and-half months leave, without pay, is granted to Mr. Vishnoo Sadashive Mulekar, Writing and Drawing Master, Poona High School.

29*th December* 1879.—Mr. Narhar Vishnu Kathavate is appointed substantive *pro tem.* Drawing and Writing Master in the Poona High School.

29th *December* 1879.—Mr. Nasrulla Khan Molvi is appointed Persian Teacher in the Rajkot High School, Kathiawar.

31st *December* 1879.—Fifteen days' leave, without pay, is granted to Mr. V. P. Datar, Acting Fourth Assistant Master, Dharwar High School.

6th *January* 1880.—Mr. Murajmal Waliram Kirpalani, acted as Third Assistant Master in the Hyderabad High School, from the 17th to the 26th October.

6th *January* 1880.—Additional sick leave, from the 8th to the 14th of December 1879 (both days inclusive), is granted to Mr. N. B. Wadke, Drawing Master, Dharwar Training College.

6th *January* 1880.—Two months' leave, without pay, is granted to Mr. Krishnaji Narayen Pilanker, Assistant Master, Rajaram High School, Kolhapur.

7th *January* 1880.—One month and fifteen days' leave, without pay, is granted to Mr. W. S. Pingle, Fourth Assistant Master, Dhulia High School.

7th *January* 1880.—Mr. S. A. Pabikar is appointed substantive *pro tem.* Fourth Assistant Master, Dhulia High School, during the absence of Mr. Pingle.

9th *January* 1880.—One month's privilege leave is granted to Mr. D. R. Tharkhadkar, Second Assistant Master, (Marathi side), Elphinstone High School

10th *January* 1880.—Mr. B. H. Kulkarni is appointed substantive *pro tem.* Fourth Assistant Master in the Lower Division of the Kolhapur High School, *vice* Mr. Rasal.

10th *January* 1880.—One month's sick leave is granted to Mr. Bhaskar Dhondeo Datar, Tenth Assistant Master, Poona High School.

10th *January* 1880.—Mr. C. Thate, F.C.E., is appointed Acting Tenth Assistant Master, Poona High School, *vice* Mr. Datar.

12th *January* 1880.—An extension of fifteen days' leave, on private affairs, is granted to Mr. G. B. Joglekar, Sixth Assistant Master, Nasik High School.

12th *January* 1880.—Mr. N. B. Sanche, is appointed Acting Sixth Assistant Master in the Nasik High School, *vice* Mr. Joglekar, on leave.

By order of the Director of Public Instruction,

JNO. BOCARRO,

Head Assistant.

Poona, Office of the Director of Public Instruction,
20th January 1880.

THE

Bombay Educational Record.

No. 3.] MARCH 1, 1880. [Vol. XVI.

THE MONTH.

The Bombay University have just published their list of text-books for the Arts Examinations of 1881 and 1882. We are glad to see on the list two such delightful books as Matthew Arnold's *Poems of Wordsworth* and Palgrave's *Golden Treasury*. The preface to the *Wordsworth* will be an education of itself in poetical criticism. The selection of poems that follows it is remarkable in two ways: it comprises all the poet's really first-rate work and that only; and the poems are grouped, not as Wordsworth himself artificially arranged them, as poems of the fancy, poems of the imagination, and so forth, but under the more natural categories of poems of ballad form, narrative poems, lyrical poems, sonnets, elegies, &c. Accordingly the *Excursion* and the *Prelude*, because they are "by no means Wordsworth's best work," are omitted. "To be recognised as a great poet," says Matthew Arnold, "to be possible and receivable as a classic, Wordsworth needs to be relieved of a great deal of poetical laggage which now encumbers him." The editor has therefore excluded *Peter Bell*, the *Ecclesiastical Sonnets*, and a host of other poems of inferior workmanship that have hitherto clogged or obscured the master-pieces imbedded among them. By thus presenting Wordsworth's best work only, and by bringing together many poems before separated "which possess a kinship of subject or of treatment," Matthew Arnold has unveiled Wordsworth to the world. To many readers of these selections he will seem an absolutely new poet—in the glory of his prime; and even to Wordsworthians, as soon as they have recovered their breath and have come to recognise the wisdom and unerring hand of this bold pruner in their vineyard, Wordsworth will shine forth with a fulness and a sweetness of autumn fruitage, never seen to be so glorious before whilst yet the dead branch remained and a too luxuriant foliage.

Palgrave's *Golden Treasury*, though an anthology, is now a standard work, and is in every respect suitable for the B.A. Examination. Candidates are required to bring up only the poems contained in the latter half of the book, a section which may be said to consist of the songs and lyrics of Shelley, Keats, and Wordsworth, together with about a dozen of the choicest minor pieces of Byron, of Scott, and of Campbell. This body of poems, bating a somewhat undue preponderance, in our opinion, of Wordsworth over Shelley, is a fair presentment of the lyrical achievements of England in the first quarter of the nineteenth century. It should therefore be especially welcome to Bombay men who have hitherto been open to the reproach of studying English poetry from Chaucer to Tennyson without reading a line of Shelley or Keats. With Wordsworth they have been familiar for the last 25 years or more; but it would probably not be an exaggeration to say that Shelley and Keats are little more than mere names to the great majority of Indian students. Now, however, that this chasm in their studies is about to be partially filled up, it may be hoped that few under-graduates will read Shelley's *Skylark*, his ode to the *West Wind*, and the *Lament*, without going straight to the poet's works and discovering with the feelings of

> some watcher of the skies
> When a new planet swims into his ken

Julian and Maddalo, the *Prometheus*, *The Cenci*, *Epipsychidion*, *The Witch of Atlas*, *Adonais*, *Hellas*, *The Sensitive Plant*, together with a glorious train of shorter poems in no way inferior to almost any of the twenty-two which are given in Palgrave; as, for example, the *Cloud*, the dirge on *Autumn*, *The Fugitives*, *Matchless*, beginning with the verse

> The flower that smiles to-day
> To-morrow dies:
> All that we wish to stay
> Tempts and then flies.
> What is this world's delight?
> Lightning that mocks the night,
> Brief even as bright.

So that we may hereafter look for Shelleyites among Indian graduates even as we have already Wordsworthians; and for the discussion of the inevitable question—What are the relative positions of Shelley and Wordsworth in the roll of English poets? Matthew Arnold unhesitatingly assigns to Wordsworth the third place

of honour. "Chaucer," he says, "cannot well be brought into the comparison. But taking the roll of our chief poetical names, besides Shakespeare and Milton, from the age of Elizabeth downwards and going through it,—Spenser, Dryden, Pope, Gray, Goldsmith, Cowper, Burns, Coleridge, Campbell, Moore, Byron, Shelley, Keats (I mention those only who are dead),—I think it certain that Wordsworth's name deserves to stand, and will finally stand, above them all. Several of the poets named have gifts and excellences which Wordsworth has not. But taking the performance of each as a whole, I say that Wordsworth seems to me to have left a body of poetical work superior in power, in interest, in the qualities which give enduring freshness, to that which any one of the others has left." Swinburne, on the other hand, would give to Shelley this or even a higher rank: Shelley "has now for two generations ruled and moulded the hearts and minds of all among his countrymen to whom the love of poetry has been more than a fancy or a fashion; he has led them by the light of his faith, by the spell of his hope, by the fire of his love, on the way of thought which he himself had followed in the track of the greatest who had gone before him—of Æschylus, of Lucretius, of Milton; he has been more to us than ever was Byron to the youth of his own brief day, than ever was Wordsworth to the students of the day succeeding; and of him, whether we class him as second or as third among English poets, it must be in either case conceded that he holds the same rank in lyric as Shakespeare in dramatic poetry—supreme, and without a second of his race. I would not pit his name against the sacred name of Milton; to wrangle for the precedence of this immortal or of that can be but futile and injurious; it is enough that our country may count among her sons two of the greatest among those great poets who have also been prophets and evangelists of personal and national, social and spiritual freedom: but it is equally certain that of all forms or kinds of poetry the two highest are the lyric and the dramatic, and that as clearly as the first place in the one rank is held among us by Shakespeare, the first place in the other is held and will never be resigned by Shelley."

We quote these glowing utterances of the heart on the greatness of Shelley and Wordsworth by two of the leading poet-critics of England, not for the purpose of "wrangling for the precedence" of either poet over the other, but simply to stimulate our University men who are about to study Wordsworth and Shelley side by side for the first time—Wordsworth under the most complete and attractive

conditions that the skill of Arnold and Palgrave can devise, Shelley in only a small portion of his best work—to turn to Rossetti's,* or Forman's or Stopford Brooke's† new editions of Shelley and to see and feel for themselves the truth of Swinburne's estimate of this master-singer.

We presume that the omission of Chaucer from the list of M.A. text-books for 1881 and 1882 is a temporary one. The publication of Furnivall's six-text edition of the *Canterbury Tales* and the thorough recension of the whole text of the poet's works by Morris and Skeat almost entirely remove the textual difficulties that once stood in the way. If it really be impracticable to prescribe more than one poet anterior to Shakespeare, we should decidedly vote for Chaucer being retained. Spenser, though his notes were the first of

those melodious bursts that fill
The spacious times of great Elizabeth
With sounds that echo still,

is a golden link between Chaucer and Milton that could be less grudgingly spared than

Old Dan Geoffry, in whose gentle spright
The pure well-head of poetry did dwell.

But why should we not have both?

We publish with this number the 16th annual issue of the Directory of the Bombay Educational Department, which the Director of Public Instruction has kindly placed at our disposal.

"THE STUDY OF LANGUAGE AS A SCIENTIFIC DISCIPLINE."

(Continued from page 44.)

It stands to reason, then, that the richer a language is in grammatical forms, and the more varied the possible application of these forms, the larger are the demands made upon the intelligence of him who has to divine their sense in any given instance. This it is that makes the study of Latin so much harder than that of French or English. The latter have discarded most of the inflexions, and replaced them by the use of prepositions and

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* 3 vols.; Moxon & Co., 1878.

† 8 Sections from Shelley: Macmillan & Co. (A Companion Volume to Arnold's Wordsworth).

auxiliaries: that is, in fact, we have got a great deal of the *differentiation* done ready to our hand, and so it is incomparably easier to catch the intended sense of "with a stick," "by a blow," "with diligence," "of cheerful look," and so on, than that of the mere ablative case by which each would be expressed in Latin. It has been the very endeavour to ease the strain upon the intelligence that has given rise to the analytic type of language. Professor Bain is entirely wrong when he says that "we merely transfer the attention from inflexions to auxiliaries," and that the "mental operation is absolutely the same." His statement that "Grammar, as exemplified in the Latin and greek languages, is particularly devoid of subtlety," and "that Latin grammar is the easy and English grammar the abstruse one"—("Education," &c., *p.* 368)—conflicts sharply with my own experience. It is certainly not justified by the argument that "the Parts of Speech are asserted without any definition, being recognized by the inflexion test, and not by their function in the sentence." Nouns and adjectives have, for the most part, the same inflexions, and only an examination of function will show to what part of speech *quam*, *cum*, *quo*, *quod*, and many other words belong. You must get at the meaning (which involves the function) of *ibi*, *tibi*, *audacter*, *propter*, &c., before you can assign them to their parts of speech. Besides, even if a learner could in every case say, "I know by the termination that I must call this word a noun, an adverb, &c.," he is not in the least degree exempted from the duty of connecting the definition with the name.

Let me give another easy illustration of the different methods pursued by the rule-and-memory man and the scientific teacher. The former, acting upon Mr. Bain's maxim, that "the exercise of the understanding is chiefly intended to aid the memory," tells his pupils that *fungor fruor*, *utor*, and *vescor*, which seem to them at first sight as much transitive verbs as any others, *govern* the ablative case through some mysterious perversity. The latter says:—"Go behind the rule. Observe that these verbs are all *dejonent*, that is, *reflective* verbs." Now we get at something rational. *Vescor* means "I feed myself," therefore *vescor carne* is not "I eat flesh," but "I feed myself *with flesh*." In like manner the learner gets to see that *fruor* means "I benefit or advantage myself *with something*," *utor* is "I employ myself with something," &c. If this is not an inductive process of reasoning, will anybody tell me what we are to call that by which it is ascertained that a seeming exception to a physical law is due to some disturbing cause?

I might go on to show how in time the scientific teacher will introduce his pupils to the history of inflexional forms, show how they depend in part on the forms of the stems to which they are attached, how they have been worn down by use, and subjected to some consequent confusion. He will help them to track noun-inflexions into adverbs, till they see that a large part of the latter are only nouns and pronouns in disguise, and are themselves parents of prepositions

and conjunctions. Mere "[illegible] adhesiveness" will make *si* and *if* stick together, but the understanding is appealed to when it is shown that *si* is only *sic* with the demonstrative *c* struck off, and that its function is identical with that of the English *so* in such phrases as "so it please you," "so I lose not honour."

I should have liked to show you in detail how beautifully the scientific method of collecting, classifying, and interrogating the actual facts and usages of the language comes out in the more difficult parts of Latin grammar, such as the use of the subjunctive mood—a subject which no "cramming" of rules will ever make clear to the learner. The scientific teacher will make his pupils examine sentences in which the subjunctive is used where there is no hypothesis or condition, and others in which there is condition, and others in which there is condition and no subjunctive, and so enable them to correct a good many grammars which tell them that the primary and essential function of the mood is to express condition or hypothesis. He will make them examine and compare various examples which differ in every other respect but agree in having the subjunctive, or agree in every other respect, but differ as regards the mood; and thus, by the inductive methods of agreement and difference, bring out the truth that the feature which is quite obvious in some examples of the use of the mood, namely, predication that goes no further than *conception*, is the only feature that is common to all; and that this general and vague idea is differentiated by the intelligence of the reader, according to the suggestions of the subject-matter or the context, into the various specialized applications of expressing some sorts of hypothesis, some sorts of consequence, the ideas of will, purpose, and so forth.

A learner so trained will soon dispense with the old bungling rules about conjunctions *governing* the subjunctive, and see that the subjunctive makes its appearance by virtue of its own proper meaning, and not because it is *governed*. When he sees the subjunctive after *quamvis* he seeks for an intelligible reason, and finds it directly in the fact that *quam vis* (= "how you please"), by appealing to a perfectly indefinite standard, introduces a concession which is merely *conceptive*. He sees in a moment why conjunctions meaning "because" are followed by a subjunctive if they are accompanied by a negative, because a reason of which the actual existence is denied is of course a matter of conception. But to pursue this matter in detail would demand a more protracted strain of attention than I could hope now to secure. Perhaps the bare suggestion of what you have escaped may be enough to elicit an effusive assurance that you are prepared to agree with me that, after all, the understanding does count for something in the study of Latin.

There is another constant exercise of the understanding which the scientific teacher will not neglect. I mean the breaking up of words into their elements and tracing the way in which the root-idea blends itself with other elements, and grows and sprouts and branches out

into the most curious and unexpected forms. I only attempt here to give a random illustration or two.

Take the root *ag-* = 'set in motion.' When I set myself in motion, I 'act,' hence a whole family of words, *actor, actio, actum, activus*, &c. Again, we get *agilis*, 'easily set in motion, agile'; *agmen*, 'an army in motion, or on the march'; *exigo*, 'I force out, I exact,' 'I have a thing *out, or to the end*,' *i.e.*, 'I complete, or do a thing thoroughly,' whence our *exact*. From the same two roots, *ex-* and *ag-*, comes the word *examen* = 'what is forced out,' or, 'what moves itself out with its two curious applications to 'a swarm of bees,' which moves out from the parent hive, and 'the tongue of a balance,' which 'moves out' when the balance inclines. From *examen* in the latter sense comes *examinare*, 'to weigh or examine.'

Take the verb *puto*. The dictionary tells you it means (1) 'to prune vines,' (2) 'to think or consider.' What can these meanings have to do with each other? asks the tyro. Look a little farther. We find that *amputo* means 'I cut round'; *supputo*, 'I cut underneath'; *deputo*, 'I lop off.' What is common to all these? The verb *puto* and the meaning 'I cut.' A little inductive process has suggested the primary meaning, which we can now trace on its travels, that is to say, we can get at the groups of *accessory notions* which cluster around it, and are implicitly conveyed by it. From the primitive mode of keeping count by *notches* (a term once familiar enough to cricketers) came the notion of 'counting,' or 'reckoning,' then that of 'thinking' generally. *Computo*, 'I compute,' is in fact 'I cut two sets of notches together,' and so reckon. Other compounds may be explained in a similar fashion.

Take the root *plic*, in *plico*, 'a bend or fold.' There is no difficulty in *duplex* and *triplex*, or in *applico*, 'I put one fold on another'; *complico*, 'I put folds together,' &c. But whence the meaning of *supplico*, 'I entreat,' and *supplicium*, which means both prayer and punishment? Simply from the bent or kneeling attitude in which a man prays or awaits the stroke of the executioner.

Take the root *tem* = 'cut,' in *temno*. We get it in *templum* = a space marked or *cut* off for sacred purpose—in *augury*, a region of the sky marked off in imagination by the augur for noticing the omens that occurred in it. Hence the word *contemplari*, 'to contemplate,' *i. e.*, to watch the *templum*. Trace the root in another direction, and you get *tempus*, 'time,' *i.e.*, duration *cut* into regular portions. The general notion is specialized into the sense of 'the state of the time, the weather, the seasons.' Hence the abstract noun *tempestas*, 'weather,' often passing into the sense of 'foul weather' or 'tempest.' Again, *temperare*, 'to cut into regular portions,' acquires the sense 'to mingle in due proportion,' whence our word *temper* in all its applications.

Look again at some of the longer Latin words. Take *proficiscor*. "Oh!" says the memory-man, "'proficiscor = I set out'; there, boys, let those two words stick together by 'verbal adhesiveness,'

and there will be no need to exercise your understanding about them." The true teacher will say, "Here is a long word, it must be worth while to see what it is made up of." Accordingly he sets to work, and gets out the elements *per* = 'forward,' *fic* = 'make,' *in* = 'begin,' *o* = 'I,' *r* = 'self,'—'I begin to make myself forward.' If he takes *oblivisor* = 'I forget,' he finds a root *liv* = 'dark' (in *lividus* and *livor*), *ob* = 'over,' *isc*, *o*, and *r* as in the last, and so gets to the sense 'I begin to darken myself over,' or 'to make darkness over myself,' a very bold and striking metaphor. The contrary word *recordor* = 'I recollect,' literally 'I put again in my heart,' reminds us of the ancient notion that the heart was the seat of the intellect. *Bene cordatus homo* = 'a good-hearted man,' in Latin meant what we should call 'a man with plenty of brains.'

It is interesting, to say the least, to find that the Greek and Latin words for *month* have the same root as the English *moon*, and that the root means simply 'to measure,' and to see from the diminutive *annulus* that *annus* must once have meant 'a circle.'

Think, too, what a field for the understanding there is, what a fine exercise in metaphor and analogy, in tracing how physical and material conceptions are sublimated into the region of the metaphysical, the intellectual, and the moral; what interesting trains of thought are set going as the learner finds that *intellectus* (understanding) is 'the *gathering* or collecting of certain things from *amongst* others'; that *cogito* (I think), means 'I keep tossing things together'; that *sapere* (to be wise) means 'to have a flavour'; that *rectus* (right) means 'stretched or straightened'; that *pravus* (wicked) means 'crooked' (compare *wrong* from *wring*); that *virtus* (virtue) means 'manliness'; that *animus* (mind) means 'wind,' as *spiritus* means 'breath,' and so forth, as θυμος (*mind* or *emotion*) in Greek is the same word as the Latin *fumus* 'smoke.'

But I should keep you all night if I attempted to exhaust this most fertile and instructive field. It simply passes my comprehension that any one should have gone through such a process of tracking out the workings of the human intellect in their most delicate, subtle, and beautiful forms, and be able to affirm that he found nothing in it but a sort of makeshift in case the power of "verbal adhesiveness" should be wanting in stickiness, and that it did nothing for him but "abbreviate the number of independent acts of memory."

Bear in mind that the scientific teacher does not go to work in a happy-go-lucky fashion, doing nothing but dazzle his pupils with a succession of etymological squibs and crackers. His plan is as methodical as that of an analytical chemist. He makes his pupils collect, compare, and discriminate all the various prefixes, suffixes, and formative elements that enter into the structure of Latin words. He leads them to the force of *con*, or *per*, or *re*, or *se* as a prefix: of *tor* and *tus*, *sis* and *sor*, *tio*, *ness*, *idus*, &c., as suffixes, by a thoroughly inductive process of examination and comparison, arranging

and classifying their results, so that they recognise at a glance the forms that denote respectively an agent, a result, an abstract idea, a diminutive, &c., or the verb-forms that express inception, repetition, the production of a certain quality, and so on. Let me assure those who have not tried this sort of work, that they have no conception what a grasp it gives the learner over his Latin vocabulary and what force and clearness will be infused into his translations. And the benefit will not stop here. The young Latin student is probably learning French, and is certainly using English. If you consider that French is for the most part Latin which has been a good deal worn down, and rather unceremoniously knocked about, and bethink you how much of our own language has come to us from Latin, partly through French and partly by direct importation, you will see in a moment what immense facilities this etymological knowledge of Latin must give for mastering French and rightly understanding English, especially when the principal changes that the words have undergone on their way have been duly noted and classified. Those who have not looked into the matter before will be surprised to find how easily some ten or a dozen laws of change may be elicited, and how wide is the range of examples over which these few rules will carry them. A few details will be found in that section of my English Grammar which treats of derivation.

It has been urged by Mr. Sidgwick, that if we want to know the sense and derivation of an anglicised Latin word, we can at any time refer to a dictionary. Now, I assert unhesitatingly that this will be all but useless to one who has no practical knowledge of Latin. To such a one fine gradations of meaning that words undergo, the analogies to which they appeal, the metaphors that they involve, the associations that cluster round them are a mere blank. It may be true that, by careful attention to current usage and familiarity with modern books, he will learn enough to get an approximate idea of the sense of what he hears or reads, but the finer subtleties of meaning which form the charm of a polished style are beyond him. Moreover, he perpetually fails to see when he ought to appeal to the dictionary. The accessory ideas by which the radical meanings of words are differentiated are by no means rigidly fixed, but vary incessantly and almost imperceptibly, and it requires a fair acquaintance with Latin, and practice in tracing the meanings of words, to be able to *feel* when an unfamiliar sense is being attached to a word. The man who knows no Latin, or has but a smattering of it, will be incessantly going wrong when he reads our older writers. He will think that "discourse of reason" in Shakespeare means "rational talk" instead of "the varied range of the rational faculties." He will not observe that "secure" in Milton means "without anxiety," and will miss the sense of such words as *evasion, reluctant, ruinous, captive, transport*, and scores more. Further, it needs some practice in the analysis of words and ideas to trace out the *general* conception which underlies a variety of

special applications to be able to appreciate duly what is a remarkable characteristic of our present English—the fine shades of difference by which many words of identical origin are distinguished, such as we see in *conduct* and *conduce*, *motion* and *remove*, *deduce* and *deduct*, *abstract* and *abstracted*, and a great number of others. This, again, is the result of that prevailing tendency of modern languages to ease the strain upon the intelligence of the hearer by limiting in practice the number and variety of the accessory ideas which are allowed to cluster round particular words, and distributing the whole number among two or more distinct words of kindred origin, so that the differentiation of the root idea is in part done ready to our hands.

If the young learner supposes that by this time we have got to the end of our demands upon his understanding, he will find himself quite mistaken. I have said nothing yet about an exercise to which he will have to address himself throughout his whole course. I mean (1) translating Latin into English; and (2) translating English into Latin. I quoted before Prof. Bain's method of achieving the first. It certainly appeals but feebly to the intelligence. You get all the possible or likely meanings of each word in a sentence, and then try various combinations of these, till by good luck "you alight upon something that pays due regard to every word and every peculiarity of grammar." This requires patient application, but "it is only the application needed to solve riddles and conundrums." Well, the patient manipulation of combinations and permutations will yield some startling results. Only give him time enough, and the biggest fool in the world might write the Iliad. He has only to take all the Greek letters that are used in the Iliad, shuffle them well together, and draw them out one by one in a perfectly haphazard manner, and go on repeating this process. According to the law of chances every one of the excessively large number of possible arrangements will make its appearance some time or other, and one of these forms the Iliad. I don't advise you to try to work out the experiment. It might form a fitting retribution hereafter for the teacher of translation by combinations and permutations.

I need hardly tell you that the right mode of going to work is something very different. The chemist does not begin his lessons in analysis with the highly complex molecules of organic chemistry. He begins with the simplest possible combinations of two elements, and step by step proceeds to those of higher complexity. In like manner, the scientific teacher of Latin will not turn mere beginners loose into Cæsar, or Livy, or Cæsar, with a grammar and a dictionary; he will begin with sentences consisting merely of a simple grammatical subject and predicate, and work these through all varieties of person and number. He will next take up sentences with a transitive verb and an object, leading naturally to the simple case of the passive voice. The commonest uses of the ablative and dative cases may now follow, the pupil all the while enlarging his

acquaintance with the declensions of nouns and pronouns, and the structure of the tenses of at least the indicative mood of verbs. In this way he is getting a clear insight into the way in which the essential framework of a sentence is made up of substantives and verbs, the nucleus of the whole being the subject and predicate. It is impossible to overrate the importance of this, and, as a piece of practical advice, I earnestly recommend teachers not to be in a hurry to introduce their pupils to adjectives. These, however, will come in their turn, and the learner will see clearly how they hang on to the substantives. The use of adjectives will be made to illustrate the attributive character of the genitive case. Adverbs and adverbial phrases will be dealt with as hangers-on to verbs and adjectives. In this way the pupil is led to see how a simple sentence is built up from its primary foundation, the subject and predicate. When all this has been well mastered, the structure of complex sentences will follow, with the nature and functions of substantival, adjectival, and adverbial, clauses, their varieties, the characteristics by which they may be recognised, and the way in which they are attached to one or other of the primary elements of the main sentence. All this will make the learner familiar with the uses of the infinitive and subjunctive moods.*

The young student who has thus learnt how a sentence is put together will do something very different from Prof. Bain's "conundrum-guessing" when he proceeds to take one to pieces. He will first eliminate the subordinate clauses—those that begin with relatives and subordinative conjunctions. This leaves him only one finite verb to deal with, which is, of course, in most cases easily detected. The verb, by its form, will tell him the number and person of the subject, and guide him to its discovery, if it is not immediately obvious. The signification of the verb will tell him whether he must look out for an object or not, and also whether that object is likely to be a simple substantive or a substantival phrase or clause. When he has thus got the essential framework of the sentence complete, he will have little difficulty in picking out the adjectives that hang on to the subject and object respectively; the adverbs and adverbial phrases will fall into their places; and lastly, the subordinate clauses will be fitted into the entire structure and themselves dealt with on similar principles. The meaning of a good part of the words composing the essential framework will usually be tolerably clear and definite, and if the learner has been trained to track the secondary significations of words from their primary ones, he will get at the precise shades of meanings that he wants, that is, at the *accessory notions* which the context suggests, not by grubbing them out of a dictionary, but by an interesting and most invigorating exercise of intelligence—an exercise that will give him

* In all this I presume that the teacher avails himself of some well-arranged manual. Of those there is now a fair choice.

continually increasing skill and confidence, and, with these, increasing delight in his work. At first he will, of course, content himself with feeling his way to the bare sense, and expressing this in exact, though it may be stiff and inelegant English: but, by degrees, style will be more and more regarded; the rude lump of mere meaning will be moulded into comely and artistic shape. This is a process which may be begun in its humbler forms even with the delectus, while in its higher ranges it will tax the matured powers of the most cultivated scholar. Translating is, in fact, a constant struggle to master, even to its minutest details, the thought of another expressed in a strange and unwonted form, and then to reproduce this thought clearly and suitably, with the forms and in the thought-moulds of an entirely different instrument of expression. It is the marked contrast between these two instruments that renders translation from Latin or Greek so much more fruitful and invigorating an exercise than translation from French or German. The thought-forms of these latter are so much more like those of English in the arrangement of the words and the use of auxiliaries and prepositions, and the range of signification of the separate words is so much more limited,* that the demands made upon the intelligence of the reader are far smaller. And this, again, it is which renders careful translation from Latin or Greek so fine an exercise in English composition. On this point Prof. Bain has made a curious mistake. The improvement in English style that is claimed for the exercise is the result of constant practice in expressing a given thought in a fresh language, and of the constant effort to do this with the utmost attainable clearness, neatness, and force, the pupil having before him all the while, in the best writings of the best authors—which are those most commonly placed before him—the finest specimens of the adaptation of expression to thought that he could well have. Prof. Bain makes it consist in the bodily transference to English of certain turns of expression and fine-sounding words and phrases met with in the classical writers. (See *Education as a Science*, p. 377.) It is this misuse of classical studies which gives rise to that windy and pompous verbosity which has such a pecuniary value for the penny-a-liner. And just as those overgrown lumpy specimens of the human race that one sometimes sees for a penny are proverbially weak in the knees, it will be noticed that the style which is tricked out with "beauties passed on from the ancient literatures" is apt to be somewhat shambling and loose-jointed. Some striking specimens of this, taken from a modern author, to which, if it were worth while, I could make numerous additions from the same source, will be found in one of the articles that I previously referred to.

As regards Prof. Bain's repeated assertion, that it is extremely difficult, if not practically impossible, to adjust the strain upon the young student's faculties in translating so that he shall not have

* Compare *cupere* with *wish*, *intendere* with *extend*, &c.

work so easy as to be of no service, or so hard as to be impossible. I beg leave, as a practical teacher, to say that it is not borne out by my experience. The works of different authors present very varying degrees of difficulty, and a teacher who knows his business can adjust these to the advancing powers of his pupils, and by judicious help can remove impossibilities out of their way, while he leaves them ample scope for hard and fruitful effort. The notion that teaching must be imperfect if it habitually places the pupil in situations of difficulty is quite a mistake. It might as well be urged that the teacher of mathematics should never give problems to be solved. The best teaching is an incessant process of bringing the learner face to face with difficulties, while it helps him to gain ever-increasing strength to overcome them. Further, I quite dispute the assertion that very little effect accrues from an exercise which can be performed with ease. A strong man can walk a dozen miles without fatigue. Does he get no benefit from the exercise? A good scholar can read Homer or Cicero with ease, but his faculties are in healthy exercise all the time. As to "cribs," a schoolmaster is a "duffer" if he cannot detect and stop the surreptitious use of them.

But if the methodical exercise of the intellect is necessary in learning how to translate Latin into English, it is still more essential for acquiring the power of rendering English into Latin. We have small occasion to trouble ourselves about case forms, genders, or concords in English, nor is it difficult to select the proper English preposition for rendering a Latin dative or ablative; but it is quite a different affair to select the right case by which to render an English preposition, or to tell whether a preposition is needed as well as a case. What vigilance and care are requisite for handling infinitive and subjunctive moods properly!—what insight into the functions of conjunctions in both languages, and the correlation of clauses!—to say nothing of the pitfalls that await the student at every step, owing to the fact that what we call the signification of a word usually involves various accessory notions, which in common usage cluster about the *bare meaning* of the word, in the thought of him who uses it, and have to be supplied by the intelligence of him who hears or reads it: coupled with the fact that these accessory notions may be absolutely inadmissible in another language in the corresponding word. *Poena* is the same word as *pain*, and *ara* certainly means a *law* or *chest*; but fancy translating, "I have a pain in my chest" by "*poenam habeo in ara mea*," or "to take pains," by "*capere dolores*." Not long since, an examiner, translating a sentence which spoke of an oracle giving no response, gave me "*deus tenuit linguam*," "the god held his tongue"! Any examiner might collect scores of similar absurdities. Just conceive, then, what habits of caution and reflection, of not being satisfied with first appearances and superficial resemblances, of observing with care and discriminating with accuracy and delicacy, of practising

into the significance of language and separating the accidental from the essential in the import of words, have been cultivated in a young student who has been subjected to the scientific discipline that I have described, and has acquired the power of carrying by systematic siege the stronghold of a tough Latin sentence, or of rendering a piece of English prose into intelligible and grammatical Latin.

But, it is urged, such a study uses up an enormous amount of the memory-power, and demands an inordinate expenditure of time. This implies that a boy's memory is like his stomach, the capacity of which is strictly limited even on Christmas-day. Of course, it is safe to say that every human faculty is limited, but the notion that every man's memory-power is a definite quantity, and that, when he learns anything, a certain quantity of that power is *used up*, strikes me as curious. Brain-power, like muscular power, admits of reparation and growth. I never met with any one who had learnt so much that he could learn no more, and, as a matter of experience, I am distinctly certain that I was never so well able to learn *more* as when I had just learnt *much*. But the strain upon the memory, when a language is properly taught, is really very moderate. The scientific discipline that I contend for may be obtained with a vocabulary of very manageable amount (I speak from actual experience), which may be mastered by degrees as occasion requires. It may be commenced with a single declension, a single tense of a verb, and the meanings of eight or ten nouns and verbs. An average of only two words a day comes to 730 in a year. No learner of a year's standing wants so many. From my own repeated experience, I can affirm that boys beginning Latin at the age of ten can, in two years' time, master the *ordinary* inflexions of nouns, adjectives, and pronouns, and the indicative forms, active and passive, of ordinary verbs, become familiar with a vocabulary of some 400 or 500 words belonging to the various parts of speech; and translate off-hand from Latin into English and from English into Latin any simple sentence made up of these words, provided it do not involve more than the ordinary uses of the cases and of verbs in the indicative mood, and this on an allowance of four or five short lessons a week. Just think of what this implies—how it must have developed habits of close observation, lively attention, and readiness in meeting new and varied demands on the mind's resources, and how many elementary logical operations must have been incessantly and successfully performed. I say, with emphasis, because I say it with the constant experience of twenty years to support me, that this is not mere memory work, but sound and exact scientific discipline. And I say, moreover, that the result is not difficult of attainment. Work on the lines that I have rapidly indicated, avoid all hurried work at high pressure, teach carefully, teach patiently, and, above all, teach slowly. It may interest many present to hear that in this work I have seen admirable results achieved by female teachers, themselves learners, and sometimes not many lessons ahead of their pupils.

As regards advanced pupils, I could point now to teachers who are able to present for examination a set of boys not exceeding fifteen or sixteen years of age, who have never had more than four Latin lessons in a week, and who can not only stand a searching examination on the text-books read in class, but, without help from dictionary or grammar, turn into good English a previously unseen average passage from Cicero, Cæsar, or Livy, and translate a piece of continuous English prose of moderate difficulty into intelligible and grammatical Latin—not faultlessly, of course, but with a very moderate percentage of errors. And then Mr. Brown or Mr. Jones tells me that teaching Latin is an obsolete infatuation, that his boy will never have occasion to make use of it after he leaves school, and will have forgotten it all in a short time. I reply that, in the first place, he is assuming what he has no right to assume. For aught he knows his boy's knowledge of Latin may be the stepping-stone to a course of high and ennobling literary culture; and in the next place if he lost all his Latin, still, in the process of learning it, provided he learnt it by such methods and with such results as I have described, he would have acquired powers of observation, discrimination, and judgment, with habits of concentrated attention, and accurate and logical thought, and above all, of keeping his mind in the course of an investigation perpetually in check, and yet perpetually on the alert, the benefits of which he would never lose. He has been trained in the methodical exercise of his intelligence under the control of logical laws in a way which will have produced good and fruitful results at whatever stage it may chance to be cut short. But then his training will have been as unlike as possible to the senseless plan of gorging the memory with forms and rules, culminating in the crowning absurdity of learning and repeating these by rote in a language which the beginner does not yet understand, and then wasting years in acquiring the almost profitless knack (for it is little more) of stringing together borrowed phrases and turns of expression into Latin verses. No doubt even under such a system as this it is possible for a man to become well acquainted with Latin or Greek, and consequently for his mind to have gone through much valuable discipline in an irregular manner, and with grievous waste of time; but it takes half a lifetime to achieve the result, and, if the process is cut short at an early stage, the time spent will have been simply wasted.

But, argues Professor Bain, the Greeks achieved marvellous results in the way of intellectual culture, and they knew only one language; why need we try to master a second or third? The logic of the argument seems to me to halt a little. It is a faulty generalization from a single instance. Because the Greeks achieved these results with the Greek language, it is assumed that any people can do the same with any language. The "thrust" is not very formidable until it is shown that the Greeks had nothing unique about their intellectual aptitudes, and that their language was in no

respect superior to English or French in its power of marking the subtle movements of thought and the intricate correlations of ideas, or in the way in which it aided the play of the mind in him who used it, by its wonderful combination of delicacy, flexibility, beauty, and power. Mill has remarked,—"I hardly know any greater proof of the extraordinary genius of the Greeks than that they were able to make such brilliant achievements in abstract thought, knowing, as they generally did, no language but their own. But the Greeks did not escape the effects of this deficiency; their greatest intellects are continually led away by words, mistaking the accidents of language for real relations in nature, and supposing that things which have the same name in Greek must be the same in their own essence." All that is true, but it is only half the truth. Language is not merely the expression, but the instrument of thought. Even in the commonest trade the use of first-rate tools reacts upon the skill and inventiveness of the workman. The Greeks achieved their splendid results in literature and philosophy in great part because their instrument of thought and expression was their own magnificent language. To enforce this truth by contrast, look at the Egyptians and Chinese, the two nations who, for long ages, addicted themselves to the cultivation of useful arts and physical science. By how much have they enriched the world's thought? Do you ask the reason of the beggarly result? Look at their clumsy languages. This fact is worth careful working out. To any one who questions the advantage of knowing a second language, with all that that knowledge brings with it, I would say, look at the Romans before they knew Greek and after.

(To be continued.)

GOVERNMENT CENTRAL BOOK DEPÔT.

Notice.

Molesworth (J. T.) Marathi and English Dictionary, unbound, and wanting Title, Preface, and Errata pages only. Price reduced from Rs. 24 to Rs. 12.

Government Central Book Depôt, Bombay,
13th February 1880.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th January to 15th February 1880.

New Works published by the Department.

MARATHI.	Rs.	a.	p.
Mahanumanimálá; or Readings in Biography by V. K. Oke	0	13	0
Bhutal Vidya; or Translation of Geikie's Physical Geography (No. II. Gujarati Science Primers)	0	10	0

New editions published.

	Rs.	a.	p.
ENGLISH.			
Howard's English Primer, New Issue, 1879	0	0	2
SANSKRIT.			
Bhandarkar's First Book of Sanskrit, seventh edition, 1879	0	8	0
MARATHI.			
Departmental Marathi First Book, eighth stereotyped edition, 1880.....	0	1	6
KANARESE.			
Departmental Second Book, second edition, 1880	0	2	6
GUJARATI.			
Bala Garbavali; or a Song-Book for Girls, by Navalram Lakshmiram, second edition, 1880.....	0	2	6
Departmental Gujarati Fourth Book, 11th stereotyped edition, 1879.....	0	6	0

N. V. BAPAT.
Curator.

DEPARTMENTAL NOTICES.

NOTIFICATION.

The subjoined Government Resolution No. 54, dated 6th January 1880, Revenue Department, is published for the information of Educational Officers.

2. The Resolution No. 6079 of 27th October 1875, was published in the *Bombay Educational Record* for December 1875, page 284.

By order of the Director of Public Instruction.

JNO. BOCARRO.
Head Assistant.

Poona, Office of the Director of Public Instruction,
2nd February 1880.

Stamps. **No. 54.**

REVENUE DEPARTMENT.

Bombay Castle, 6th January 1880.

Read the following Resolution from the Government of India, Department of Finance and Commerce, No. 1970, dated 18th December 1879:—

"Read again—

Circular No. 3635, dated 7th October 1875, directing the submission to the Government of India of all cases of forgery or fraudulent use of any description of stamps.

"Read also—

A letter from the Government of the Punjab, No. 3369 dated 22nd November 1879, proposing that the submission of reports of forgery or fraudulent use of stamps may now be confined to cases of special importance.

"RESOLUTION.—In modification of the orders of October 1875, the Governor-General in Council is willing to forego the report of cases of the fraudulent re-use of stamps except when the circumstances are novel or important. But forgeries or fraudulent alteration of stamps should always be reported to the Government of India."

RESOLUTION—Copies of the Resolution of the Government of India to be communicated for the information and guidance of all the officers and departments concerned, with reference to Government Resolution No. 6079, dated 27th October 1875.

(Signed) JOHN NUGENT,
Acting Secretary to Government.

To All HEADS of OFFICES UNDER the REVENUE, FINANCIAL, and GENERAL DEPARTMENTS; all DEPARTMENTS of the SECRETARIAT; the ACCOUNTANT-GENERAL.

Rules for encouragement of Elementary Drawing.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 28th January 1880.

No. 119.—The following Provisional Rules for the encouragement of Elementary Drawing, are published for general information :—

EDUCATIONAL DEPARTMENT.

PROVISIONAL RULES FOR THE ENCOURAGEMENT OF ELEMENTARY DRAWING.

Government having sanctioned the teaching of Elementary Drawing concurrently with General Education in Middle Class Schools, the course of instruction is to be designated "First Grade Art."

2. The subjects forming the course are—

A.—Freehand Drawing.
B.—Model and Object Drawing.
C.—Practical Geometry.

A.—First Grade Freehand Drawing.

By freehand drawing is meant drawing without the aid of any kind of mechanical means of execution, such as ruling, measuring or tracing, or the use of any thing but pencil, paper (or slates) and India-rubber.

The examples used should be characterised by simplicity and beauty of outline, and should be the subject of a flower, leaf, fruit, or some simple object with which the pupils are acquainted.

B.—First Grade Model Drawing.

By model drawing is meant drawing in outline from some simple object arranged so that the pupils may have to draw both curved and straight lines. Indian pottery, brass utensils, Surat toys, form admirable examples for this subject.

C.—Practical Geometry.

This stage is intended to teach elementary notions of practical geometry and the use of simple drawing instruments.

3. No less than two lessons a week, of one hour's duration each, must be given.

4. Schools in which drawing is taught will be examined once a year, and a prize will be given to every boy or girl who passes the standard of excellence in the First Grade.

5. A certain number of art teachers qualified to teach drawing in the First Grade will be appointed on salaries of Rs. 40 and 50 per mensem.

6. Candidates desirous of qualifying to give instruction in elementary drawing must hold a Second Grade Art Certificate.

7. The subjects comprised in the Second Grade course are—

(*a*)—Freehand drawing from flat examples.
(*b*)—Freehand drawing from models.
(*c*)—Practical geometry.
(*d*)—Linear perspective.
(*e*)—Delineation of diagrams on the black board.

8. Candidates for Second Grade Art Certificates will be examined at the Annual Examinations of the School of Art in March, and must be prepared to—

(*a*)—Draw, in a given time, an example in outline from the flat.
(*b*)—Sketch in outline a group of models placed by the Examiners.
(*c*)—Solve on paper questions in geometry, showing a knowledge of (1) the construction of single figures, (2) and the combination of figures up to figure 105 of Burchett's Geometry.
(*d*)—Solve questions in perspective showing the use of vanishing and measuring points used in horizontal planes and to represent simple solids on the ground plane in any position.
(*e*)—Instruct a class in the presence of the Examiners by an example drawn on the blackboard.

9. A candidate must send up the following works, four in number, as specimens of workmanship, and they must be approved before he can be admitted to the Annual Examinations :—

(*a*)—A sheet of freehand outline drawing.
(*b*)—A drawing from a group of models in outline.
(*c*)—A sheet of no less than six geometrical problems with written description.
(*d*)—A perspective diagram.

The above works must be executed on Imperial sheets of paper.

10. Each candidate must pay a fee of Rs. 5 before he can be admitted to the Examinations.

11. Schoolmasters and Pupil-teachers in Middle Class Schools who hold Second Grade Art Certificates and who teach drawing in their own schools, shall receive an annual grant of Rs. (100) one hundred, and one rupee for every boy or girl who passes the standard of excellence in the First Grade.

12. Schoolmasters and Pupil-teachers residing in Bombay can attend the early morning classes at the School of Art to qualify themselves for the Second Grade Art Certificates by paying the usual school fees.

13. Art Teachers who already have been appointed to Drawing Classes are requested to prepare themselves and send up the required number of works for the Second Grade Art Certificate.

This must be done within one year from the present date; otherwise they forfeit their appointments.

By order of His Excellency the Honourable the Governor in Council,

J. R. NAYLOR,
Acting Chief Secretary to Government.

Poona, Office of the Educational Inspector, C. D.,
15th February 1880.

Published for general information.

T. B. KIRKHAM,
Acting Educational Inspector, C. D.

Schoolmasters and Postal Duties.

No. 2592 of 1880.

From the POSTMASTER-GENERAL, BOMBAY.

To the DIRECTOR of PUBLIC INSTRUCTION,
BOMBAY PRESIDENCY, POONA.

Postmaster-General's Office,
Dated the 17th February 1880.

SIR,—I have the honour to bring to your notice that the Schoolmaster in charge of Post Office at Harnay, taluka Dapoli, zilla Ratnagiri, on being transferred left the station without waiting for his successor.

2. The Acting Sub-Inspector of Post Offices, Konkan Division, having heard of the Schoolmaster's departure, at once proceeded to Harnay, and found that the Assistant Schoolmaster held charge of the Post Office, and that he was unable to conduct the postal work owing to his incompetency to comprehend the instructions he had received from the Head Master or that he had no instructions at all.

3. The importance of Post Offices has, since the transfer of the Money Order system from the Treasury to the Postal Department, been greatly increased, and I request that you will be so good as to order that, in case of transfers, the Schoolmaster in charge of a Post Office should not, if it can be avoided, leave the station before the arrival of his successor, and should anyhow give intimation in time to the Inspector of the District of the receipt of an order for transfer so that he may be prepared to make arrangements for meeting any case of emergency.

4. There being many Post Offices under Schoolmasters, you will, I have no doubt, see the necessity of the measure I have requested being adopted.

I have &c.,

(Signed) C. A. STUART,
Officiating Postmaster-General.

Poona, Office of the Educational Inspector, C. D., 20th February 1880.

MEMORANDUM.

Published for the information of Deputy Inspectors and Masters in the Central Division.

T. B. KIRKHAM,
Acting Educational Inspector, C. D.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM THE 16TH JANUARY TO 15TH FEBRUARY 1880.

16th January 1880.—Six months' additional leave, without pay, is granted to Mr. V. B. Bhandiwad, First Assistant Master (Canarese Side), Belgaum High School.

16th January 1880.—Mr. Gopal Ganesh Agarkar is appointed Senior Dakshina Fellow in the Deccan College.

16th January 1880.—Messrs. V. R. Joshi, N. V. Chatré, and V. B. Karandikar are appointed Junior Dakshina Fellows in the Deccan College.

16th January 1880.—Mr. Raghunath Narsinhva Madholkar is appointed Senior Dakshina Fellow in the Elphinstone College.

16th January 1880.—Mr. Ganesh Shrikrishna Khapadi is appointed Senior Dakshina Fellow in the Elphinstone College.

16th January 1880.—Mr. Kavasji Rezanji Sethna is appointed Junior Dakshina Fellow in the Elphinstone College.

16th January 1880.—Mr. Balwant Alaji Dewekar is appointed Junior Dakshina Fellow in the Elphinstone College.

16th January 1880.—Mr. H. F. Shanahan, M.A., is appointed Third Assistant Master (Gujarathi Side), Elphinstone High School, on probation.

16th *January* 1880.—Mr. Ramrao Mahalleg, is appointed substantive *pro tem.* First Assistant Master in the Training College, Dharwar.

17th *January* 1880.—One and-a-half month's leave, without pay, is granted to Mr. Ramchandra B. Gangana, Sixth Assistant Master, Ratnagiri High School.

17th *January* 1880.—Mr. Mahadeo S. Kashikar, Seventh Assistant Master, Ratnagiri High School, is appointed substantive *pro tem.* Sixth Assistant Master in the same School, *vice* Mr. Gangana, on leave.

17th *January* 1880.—Mr. Bala B. Lele, Eighth Assistant Master, in the Ratnagiri High School, is appointed substantive *pro tem.* Seventh Assistant Master in the same School, *vice* Mr. Kashikar, promoted.

19th *January* 1880.—Mr. Manockji Sheriarji Baruchа is appointed a Fellow in the Poona Civil Engineering College.

19th *January* 1880.—Mr. Bhutnath Chakerbatty is appointed a Fellow in the Poona Civil Engineering College.

19th *January* 1880.—Mr. Santappa Santaya Hatyangdikar is appointed a Fellow in the Poona Civil Engineering College.

19th *January* 1880.—Mr. Manockji Dorabji Talati is appointed substantive *pro tem.* Sixth Assistant Master in the Narayan Jagannath High School, Karrachee.

19th *January* 1880.—Six days' additional leave, without pay, is granted to Mr. G. M. Laiwala, Second Assistant Master, Ahmedabad High School.

21st *January* 1880.—Twenty-four days' privilege leave is granted to Mr. K. S. Rége, Fourth Assistant Master, Ratnagiri High School.

27th *January* 1880.—Mr. M. N. Wadia is confirmed in his appointment as First Assistant Master in the Surat High School.

27th *January* 1880.—The transfer of Mr. K. K. Desai, Second Assistant Master, Nariad High School, to Surat High School as Fifth Assistant Master, and the transfer of Mr. R. D. Patel, Fifth Assistant Master, Surat High School, to Nariad as Second Assistant Master, are sanctioned.

29th *January* 1880.—Mr. Vaman Bhikaji Parchuré, B.A., Sixteenth Assistant Master, Poona High School, is appointed substantive *pro tem.* Eleventh Assistant Master in the same school in place of Mr. Shridhar Mahadeo Kalé.

29th *January* 1880.—Mr. Haripad Mitra, Acting Seventh Assistant Master, Poona High School, is appointed substantive *pro tem.* Sixteenth Assistant Master in the same school in place of Mr. Parchuré.

30th *January* 1880.—Mr. Venkatesh Krishna Dravid, B.A., is appointed Acting Seventh Assistant Master in the Poona High School, *vice* Mr. Rajat, on leave.

30th *January* 1880.—Fifteen days' privilege leave is granted to

Mr. Prannarayan, Head Master, First Grade Anglo-Vernacular School, Bhavnagar.

30th *January* 1880.—Mr. Keshow Hari Ganoo is appointed a Fellow in the Poona Civil Engineering College.

30th *January* 1880.—Mr. Anant Narayan Nadkarni is appointed substantive *pro tem.* Fifth Assistant Master, Belgaum High School.

30th *January* 1880.—Mr. B. A. Enti is confirmed in his appointment as First Assistant Master in the Bhavnagar High School.

2nd *February* 1880.—One and-a-half month's leave, without pay, is granted to Mr. Haripad Mitra, substantive *pro tem.* Sixteenth Assistant Master, Poona High School.

2nd *February* 1880.—Leave without pay, from the 2nd February to the 10th March 1880, is granted to Mr. A. M. Thakar, Seventh Assistant Master, Satara High School.

2nd *February* 1880.—Mr. H. P. Lad, Eighth Assistant Master in the Satara High School, is appointed substantive *pro tem.* Seventh Assistant Master in the same school, *vice* Mr. Thakar.

2nd *February* 1880.—Six months' sick leave is granted to Mr. Mahamed Virji Patel, Hindustani Teacher, Poona Camp First Grade Anglo-Vernacular School.

2nd *February* 1880.—Mr. Hargovan Mayaram, Head Master, Taluka School, Nariad, is appointed Head Master, Taluka School, Broach, No. 1.

2nd *February* 1880.—Mr. Jivaram Kalidas, Taluka Master, Broach, is appointed Taluka Master, Umreth.

2nd *February* 1880.—Mr. Asharam Motiram, Taluka Master, Umreth, is appointed Taluka Master, Nariad.

2nd *February* 1880.—Mr. Krishnaram Govindram, Taluka Master, Prantej, is appointed Taluka Master, Pardi.

2nd *February* 1880.—Mr. Hargovan Narsiram Taluka Master, Pardi, is appointed Taluka Master, Prantej.

2nd *February* 1880.—Mr. Gangashankar Mayaram, Head Master, Vernacular School, Virasad, is appointed Head Master, Vernacular School, Cambay.

2nd *February* 1880.—Mr. Brijvallabh Harjivan, Head Master, Vernacular School, Cambay, is appointed Head Master, Vernacular School, Uttarsanda.

3rd *February* 1880.—Mr. Gagal V. Pathak, Third Assistant Master, Broach High School, is appointed substantive *pro tem.* Second Assistant Master, Surat Branch School.

3rd *February* 1880.—Mr. Kamalashankar P. Trivedi, B.A., is appointed substantive *pro tem.* Third Assistant Master, Broach High School.

3rd *February* 1880.—Two months' leave, without pay, is granted to Mr. Shankar Raoji Apté, Fourth Assistant Master, Dharwar High School.

3rd *February* 1880.—Mr. V. P. Datar, Fifth Assistant Master

in the Dharwar High School, is appointed substantive *pro tem.* Fourth Assistant Master in the same school, during the absence of Mr. Apté.

3rd *February* 1880.—Mr. K. H. Hubli, is appointed substantive *pro tem.* Fifth Assistant Master in the Dharwar High School, *vice* Mr. Datar.

3rd *February* 1880.—An extension of two months' leave, without pay, is granted to Mr. Krishnaji Narayan Patankar, Assistant Master, Rajaram High School, Kolhapur.

7th *February* 1880.—Mr. Devnal Khemachand, Ninth Assistant Master, N. J. High School, Karrachee, is appointed Acting Sixth Assistant Master in the same school, *vice* Mr. Hormasji.

7th *February* 1880.—An extension of one month's sick leave is granted to Mr. R. D. Datar, Tenth Assistant Master, Poona High School.

7th *February* 1880.—Mr. P. B. Joshi is appointed substantive *pro tem.* Sixth Assistant Master in the Ratnagiri High School, *vice* Mr. Gangan.

7th *February* 1880.—A month's privilege leave is granted to Mr. Uttamram N. Mehetaji, Head Master, Kattyawar High School.

7th *February* 1880.—Mr. K. I. Desai, First Assistant Master, Kattyawar High School, is appointed Acting Head Master of the same school, *vice* Mr. Uttamram.

7th *February* 1880.—Mr. Hasangji B. Vania, substantive *pro tem.* Second Assistant Master, Kattyawar High School, is appointed Acting First Assistant Master in the same school, *vice* Mr. Desai.

7th *February* 1880.—Mr. Hargovan H. Vyas, Third Assistant Master in the Kattyawar High School, is appointed Acting Second Assistant Master in the same school, *vice* Mr. Vanta, promoted.

7th *February* 1880.—Mr. Harilal K. Desai, Fourth Assistant Master in the Kattyawar High School, is appointed Acting Third Assistant Master in the same school, *vice* Mr. Vyas, promoted.

7th *February* 1880.—Mr. Laxmichand P. Adalja, substantive *pro tem.* Fifth Assistant Master in the Kattyawar High School, is appointed Acting Fourth Assistant Master in the same school, *vice* Mr. Desai, promoted.

7th *February* 1880.—Mr. K. S. Masurkar is appointed substantive *pro tem.* Ninth Assistant Master in the Poona High School.

9th *February* 1880.—Mr. J. B. Modak, B.A., First Assistant Master, Ratnagiri High School, is appointed Head Master, Tanna English School.

By order,

JNO. BOCARRO,

Head Assistant Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
23rd February 1880.

THE

Bombay Educational Record.

No. 4.] APRIL 1, 1880. [Vol. XVI.

THE MONTH.

DEAN STANLEY'S *Life and Correspondence of Dr. Arnold*, late Head Master of Rugby School and Regius Professor of Modern History in the University of Oxford, is to be found in most of our High School libraries; but it is a book which, as far as our experience goes, is very seldom read. Yet Dr. Arnold was in every respect one of the greatest schoolmasters that ever lived, and the *Life* is one of the best biographies in the English language. It would be difficult to name any other book from which the masters in our High Schools could learn so much of the highest principles of their profession and receive a more wholesome moral stimulus for their daily work. We purpose giving occasional extracts from the biography in the hope that some of our readers may be led to study the book itself.

THE London newspapers make the announcement that at the special request of the local Government Board, the Government of India have asked the Secretary of State to sanction the appointment of an Inspectress of Schools for Madras, and have further suggested that Mrs. James Brander should be chosen to fill the new office. This lady, who has been residing in Edinburgh for the last two years, was head mistress of the Government Normal School in Madras from 1870 to 1875, and on resigning this position she received a vote of thanks from the Governor in Council for the manner in which she discharged its duties. It is understood that she has just received official notice of the appointment, which was wholly unsolicited, and that she will proceed to Madras in the course of a fortnight. The novel nature of the appointment makes it a matter of great interest to educationists in India and at home.

THE total of the Education Estimates in England for the new financial year amounts to £2,536,077. This is the contribution of the country out of the Consolidated Fund, and is over and above what is levied in the shape of an education rate, raising the total amount expended on elementary schools, from public sources, to little, if anything, short of £4,000,000. To this again must be added about £750,000 voluntarily subscribed for the maintenance of Church schools not having a share in any local rate; so that four millions and three-quarters represent about the amount of assistance given from public and private benevolence, excluding endowments, towards the education of the children of the poor and the working classes. In return for all this there are some 20,000 certified efficient schools, as many certified head-teachers, some 5,000 assistants, and about 30,000 pupil-teachers, who are apprenticed with the object of hereafter becoming schoolmasters and schoolmistresses, making a total teaching staff of between 50,000 and 60,000 elementary teachers, men and women.

AN analysis of the Cambridge Mathematical Tripos shows that London this year contributed one-seventh of the whole number of successful candidates, whilst Scotland, Ireland, Wales, Lancashire, Yorkshire, and the West and Midland counties of England were all well represented, as also some of the English Colonies and dependencies. The greater portion of the candidates were scholars, exhibitioners, or sizars of their respective colleges, and these will be found to have nearly all deserved honour. From the first establishment of the Mathematical Tripos up to the year 1851, all who were candidates for classical honours had to take honours previously in mathematics, and thus it was, probably, that classics came to be studied at Cambridge in subordination to mathematics, although the University of Bentley and Porson cannot be accused of neglecting classics. About the year 1850, and for a few years before and since, the number of men who went out in mathematical honours was much greater than it has been since 1860. A century ago there were only thirty-eight who had obtained honours in this tripos, and then no other existed. Now a man may go out in honours in either the mathematical, classical, moral science, natural science, theological, law, history, Indian languages, or Semitic languages tripos; and that all these attract a considerable number of candidates,

proves that vast numbers of men come up to the University now-a-days from very different motives than of yore. In the published lists issued by the University, the colleges only are given in addition to the names, but it has been ascertained that all parts of the United Kingdom, as well as our far-off dependencies, send their most promising men to study mathematics at the first Mathematical University in the world. Of late years both Scotland and Ireland have sent up some of the most promising students from their colleges, who have taken high honours. The Country Palatine of Lancashire has several times of late years furnished the senior wrangler, whilst high wranglers have frequently come from Yorkshire, and from the midland and western counties.

The *Saturday Review* says:—"The discussion on Sir John Lubbock's motion to add natural science to the extra subjects taught in elementary schools really involved two perfectly different questions. That the rudiments of natural science may usefully be taught in elementary schools is quite true. That there is at present a mischievous tendency to teach too many things in elementary schools is quite true. These two positions are often defended as though they were mutually antagonistic. As a matter of fact, they are nothing of the kind. They have to do with two different errors in the existing system of elementary education, and they may be held together without the slightest inconsistency. The first error in the existing system of elementary education is that it starts with a wrong conception of the kind of knowledge which is really useful for the class of children who attend at elementary schools. The ideal most in favour is that a child, when it leaves school, should know a little grammar, a little geography, a little history, and, if possible, just a taste of some foreign language. But, unfortunately, 99 per cent. of the children will probably, within two years after they leave school, have equally forgotten their dates and their maps, their analysis of sentences, and their irregular verbs. What is wanted in elementary education is, first, a real mastery of the rudiments which the children will need when they leave school, as much as when they are at school; and, next, an acquaintance with any other subjects which can fairly be described in the same way. As regards the rudiments, the question settles itself. If a child at leaving school is able to read well enough to read for his own amusement, there is no fear

that he will lose the art afterwards. In the same way opportunities present themselves for writing and casting accounts as soon as he has a letter to send to his family, or a week's wages to portion out. The second prevalent error in elementary education is that of trying to cram into it a great deal which properly belongs to secondary education. If the energy which now goes to the introduction and maintenance of extra subjects in elementary schools were devoted to the provision and maintenance of schools in which such subjects would not be 'extra,' secondary education would have attained a development of which scarcely anybody now dreams."

The *Pall Mall Gazette* gives some interesting statistics regarding School-libraries in France:

From recently-printed returns, it appears that the school libraries in France have, during the last ten years, increased in a remarkable manner. Established originally for pupils in the schools, these libraries have been gradually made use of more and more by the parents and friends of the scholars, and have now become really people's libraries supported by the State, which contributes 120,000 francs (4,800*l.*) a year for the purchase of books, and by the municipalities. In 1866, there were 4,835 of these libraries; but, by 1877, the number had increased to 17,764. During the same period also, the number of books purchased rose from 180,853 to 1,716,900. The contributions made by the departments to the libraries vary very largely in amount. The Côte-d'Or, for instance, subscribes 736*l.* annually; while the department of the Gers pays only 20 francs a year. The departments possessing the greatest number of school-libraries are: the Haute Marne, which has 548; the Marne, which has 580; the Ardennes, which has 520; and the Aisne, which has 514. The department of the Seine has 461 libraries, but of these 319 are in Paris; while the department of the Eastern Pyrénées comes last on the list, with 48 libraries only. Many of the communes have also small libraries; but in some of them the number of volumes is extremely few, and in some the books consist exclusively of children's stories and religious works.

Lord George Hamilton while presiding last month at the distribution of prizes and certificates at the College of Preceptors,

London, told the following amusing story of his experience as a casual inspector of an Irish Primary School :—

"I some years ago attempted, in rather a crack Irish elementary school, to examine one boy in mental arithmetic. I put the question to him, "Suppose I give you 1*d.* a day for five years, what would it amount to?" The boy in almost an instant calculated it, and as I thought he was 1*d.* wrong in his answer, I said. "No, you are wrong." He said, "No, I am quite right." I took my pencil out and I said, "You are 1*d.* wrong." He said, "Shure, your honour's forgot there's leap-year." It is true I had not made allowance for the fact; the laugh was turned against the examiner, and never since that time have I had the courage to examine."

His Lordship no doubt acted most sensibly in at once admitting his error, as in his question he evidently meant five consecutive calendar years and forgot that there might be one or even two leap-years in that period. A man too proud to own to a mistake would probably have tried to save himself by pointing out with an air of superior wisdom that the question as it stood admitted of three correct answers, and that the boy should have given all three. But he would have been despised by the boy.

EXTRACT FROM STANLEY'S LIFE AND CORRESPONDENCE OF DR. ARNOLD.

Of Dr. Arnold's intercourse with the assistant-masters it is for obvious reasons impossible to speak with that detail which the subject deserves. But though the coöperation of his colleagues was necessarily thrown into the shade by the activity and rigour of his own character . . . . . it was one of his main objects to increase in all possible ways their importance and their interest in the place [*i.e.* Rugby school]. "Nothing delights me more," he said, in speaking of the reputation enjoyed by one of his colleagues "than to think that boys are sent here for his sake rather than for mine." In matters of school discipline he seldom or never acted without consulting them. Every three weeks a council was held in which all school matters were discussed and in which every one was free to express his opinion or propose any measure not in contradiction to any fundamental principle of school-administration, and in which it would not unfrequently happen that he himself was opposed and outvoted. He was anxious that they like himself should have time to read for their own improvement, and he was also glad to encourage any occasional help that they might render to

the neighbouring clergy. But from the first he maintained that the school was to occupy their main and undivided interest . . . . Whatever, in short, he was in his own department, he wished them to be in theirs;—whatever he felt about his superintendence of the whole school he wished them to feel about that part of it especially committed to them. It was an increasing delight to him to inspire them with general views of education and life, by which he was himself so fully possessed; and the bond, thus gradually formed, especially when in his later time several of those who had been his pupils became his colleagues, grew deeper and stronger with each successive year that they passed in the place. Out of his own family, there was no circle of which he was so completely the animating principle, as amongst those who coöperated with him in the great practical work of his life; none in which his loss was more keenly felt to be irreparable or his example more instinctively regarded as a living spring of action and a source of solemn responsibility, than amongst those who were called to continue their labours in the sphere and on the scene which had been ennobled to them by his counsels and his presence.

HOW THE EARTH WAS FIRST MAPPED OUT BY THE GREEKS.

What these early maps were we do not know; but we can form a reasonable conjecture. The earth at that time was supposed to be a flat circular plain, or disc, the broadest part being from east to west, which was entirely surrounded by an ocean, or great river, that washed it upon all sides. In about the centre of this plain Greece was supposed to be situated. The great central sea of the inhabited region was the Mediterranean. The furthest point known in the west was the Straits of Gibraltar, then called the Pillars of Hercules. The southern part comprised the north of Africa as far as the deserts; while the region north embraced the countries bordering upon the Mediterranean, and an unknown hyperborean land further to the north, with the Euxine and Caspian Seas at the north-east. The furthest eastern point known was about the western limit of India. This was what would then be contained in a map as a representation of the earth. The sun was supposed to pass under and around this flat plain, which was then the mode of accounting for the changes of day and night. The space beneath was supposed to be a great vault, called Tartarus, the abode of the spirits of the wicked among men, as the region corresponding to it, above the plain, was the heaven, or abode of the gods. The unknown regions beyond the Pillars of Hercules was filled up with creatures of the fertile imaginations of the Greeks. To the north-west and north were the Cimmerians, a people living in perpetual darkness; and the Hyperboreans, a race supposed to be exempt from toil, disease, or

wars, who enjoyed life for a thousand years in a state of undisturbed serenity. To the west of Sicily were the enchanted islands of Circe and Calypso, and the floating island of Eolus. A little to the north of the Pillars of Hercules was the entrance to the infernal regions; and far out in the Western Ocean, beyond the limits of the known earth, was the happy region called Elysium, a land of perpetual summer, where a gentle zephyr constantly blew, where tempests were unknown, and where the spirits of those whose lives had been approved by the gods dwelt in perpetual felicity. Here, also, were the gardens of the Hesperides, with their golden apples guarded by the singing nymphs, who dwelt on the River Oceanus, which was in the extreme west, and the position of which was constantly shifted as geographical knowledge increased.—*Popular Science Monthly.*

LEARNING TO WRITE.

We believe that there is no single system of *séances* for writing, and that a child belonging to the educated classes would be taught much better and more easily if, after being once enabled to make and recognise written letters, it were let alone, and praised or chidden not for its method, but for the result. Let the boy hold his pen as he likes, and make his strokes as he likes, and write at the pace he likes—hurry, of course, being discouraged—but insist strenuously and persistently that his copy shall be legible, shall be clean, and shall approach the good copy set before him; namely, a well-written letter, not a rubbishy text on a single line, written as nobody but a writing master ever did or will write till the world's end. He will make a muddle at first; but he will soon make a passable imitation of his copy, and ultimately develop a characteristic and strong hand, which may be bad or good, but will not be either meaningless, undecided, or illegible. This hand will alter, of course, very greatly as he grows older. It may alter at eleven, because it is at that age that the range of the eyes is fixed, and short sight betrays itself; and it will alter at seventeen, because then the system of taking notes at lectures, which ruins most hands, will have cramped and temporarily spoiled the writing; but the character will form itself again, and will never be deficient in clearness or decision. The idea that it is to be clear will have stamped itself, and confidence will not have been destroyed by worrying little rules about attitude, and angle, and slope, which the very irritation of the pupils ought to convince the teachers are, from some personal peculiarity, inapplicable. The lad will write, as he does anything else that he cares to do, as well as he can, and with a certain efficiency and speed. Almost every letter he gets will give him some assistance, and the master's remonstrance on his illegibility will be attended to, like any other cautions given in the curriculum. As it is, he simply thinks that he does not write well, instead of thinking

that not to write well is to fall short in a very useful accomplishment and to be *pro tanto* a failure.

We are not quite sure that another process ought not to be gone through, before writing is taught at all. Suppose our boys and girls were taught to read manuscript a little? They are taught to read print; but manuscript is not print, or very like it, and they are left to pick up the power of reading that the best way they can; they never devote half-an-hour a day for six months to manuscript reading. If they did, it would be easier to them all their lives, and they would learn to believe in legibility as the greatest, or at any rate, the most useful, quality that writing can display—an immense improvement, if our experience can be trusted, in the usual youthful ideal on the subject. The business of life, no doubt, soon teaches children to read manuscript; but many of them never read it easily and retain through life an unconquerable aversion to the work, from the fatigue and vexation which it causes them. We have known men so conscious of this defect, that they always have important letters read aloud to them; and others who would refuse any work, however anxious on other grounds to accept it, if it involved the frequent perusal of long manuscripts in varied handwritings. No doubt, the tendency to a broad and coarse, but beautifully legible handwriting, which has conquered the upper class and is slowly filtering downwards, is diminishing this reluctance, but it would be more rapidly removed if a little trouble were taken to teach children to read handwriting. They hardly see any till they begin to receive correspondence, and are never compelled to read any, and consequently learn to write what they cannot read, without intelligence and and without pleasure.—*Spectator.*

VARIETY IN OCCUPATION.

THERE is a powerful reason for preferring a preponderance of intellectual over muscular exercises in all conditions of life, healthy or otherwise. The mind, unlike the body, is capable of perpetual and apparently unlimited development during the whole extent of life, while its influence over the body is, even in ordinary subjects, at least as great as the converse influence of the body. With the highly cultured it seems to be much greater, and this is probably the reason why brain-workers generally attain a greater age than others. We cannot doubt that *ceteris paribus*, intellectual activity sufficiently varied is beneficial to the health rather than otherwise. As modern European life is constituted, complete mental rest for days and weeks together is necessary, in periods more or less frequent, for every brain-worker. By rest, indeed, we do not mean self-imposed inactivity, or banishment from all else but ourselves and our thoughts, for, with Cowper, we believe that

> A business of occupation is not real.
> A mind quite vacant is a mind distressed.

Probably this kind of mental inaction is seldom necessary, or even advisable. But besides the directly physical benefits of cessation from professional work, change of air, and other slight changes, restful elements are to be sought in the semi-emotional, semi-intellectual recreation of music and art, and of unfamiliar scenery. The principal difference which we believe should always exist between the occupations of the two sexes is, that women should never give themselves over to such exhausting forms of work, whether of brain or of muscles, as men may. This is not so much because of their average strength being lower (for average considerations should not bind the exceptions), as because experience shows that such occupations tend to impair the distinctive *grace* and *freshness* of the sex. How much the human race owes to this freshness of life, usually preserved so much longer in women, none can tell, but all instinctively recognise its influence. The danger of desultory habits and moods, as a result of frequent variety of occupation, is, we believe, greatly exaggerated. It exists principally for those whose early education has been defective and limited, and whose natures have been formed in such a narrow mould that they cannot properly assimilate and dispose of the results of varied experience. For those who, coming of a cultured stock, have received a thorough and comprehensive training in early life, there should be no such danger. When their education is complete—and this rule holds good for both sexes—they should choose and enter upon one regular occupation, but not be bound by any rules which their own taste and discretion do not fix, in the disposal of their leisure. The more variety in this the better.—*Kensington.*

"THE STUDY OF A LANGUAGE AS A SCIENTIFIC DISCIPLINE."

(*Concluded from page 52.*)

Of course any language may be studied scientifically, and the study will furnish scientific discipline; but languages are far from being on a par in this respect. The study of French will not yield results at all approaching in value those obtained in the study of Latin or Greek. The language has not the same richness and variety of materials for scientific manipulation, and its numerous incongruities and caprices offer serious obstacles to scientific explanation.

For instance, it is not easy for a learner to see why the Latin genitive *illorum*, in the form *leur*, should be both a possessive and a dative, or why the dative form *moi* should be replaced by the accusative *me* before the verb, or to follow that troublesome little word *que* through all its vagaries. German is better for the purpose, but its structure is too cognate with that of English* to furnish the con-

* It is probable that in many respects the study of German would be a better mental discipline for a Frenchman than the study of Latin.

trusts that challenge the attention, and it shares the analytic characteristics of French and English, with the results that I before remarked on. And then, as regards both French and German, the paramount importance of acquiring fluency in the use of the languages as means of intercourse, is fatal to that thorough, nay even laborious treatment of the study which is essential to its scientific discipline. To contend that the true end of language-study is transgressed when we make it the means of giving this scientific discipline to the learner's mind is on a par with complaining that in the study of geometry time is wasted in the laborious demonstration of truths which the learner never doubted, and can make practical use of at once.

I dare say many will set me down as a rabid enthusiast, when I declare my conviction, not only that the study of Classics, or even of Latin alone, furnishes *when rightly conducted* a scientific discipline as logical and strict as any physical science, but that it is easier to get such discipline out of the former than out of the latter. In the former the materials for study exist in great abundance, and ready to our hand at any moment, and the selection and arrangement of them is entirely under our own control. In such a subject as Chemistry there must necessarily be a large expenditure of time (to say nothing of money-cost) in providing and arranging the phenomena to be dealt with, *especially if a strict inductive process is insisted on*. Unfortunately this is very far from being easy to secure. Of course nothing can be more instructive than to trace and repeat the investigations by which, *e.g.*, the nature of combustion and the composition of water were established. But how can a science-master in a school find time for all this? As a matter of fact, he usually attempts only a small part of it, and lets his pupils take the rest upon trust. An attentive observer will find that this "taking upon trust" is vastly more prevalent in science-teaching than is usually supposed, and vitiates that disciplinary value which is so often vaunted. It too often escapes notice that it requires a mind already disciplined in logical processes and habits of close thinking to perceive the significance even of the experiments that are performed. A large part of what really goes on in any chemical experiment is beyond the cognizance of the senses, and only a trained mind appreciates the way in which what does present itself to the senses compels us to assume the reality of what does not. The untrained mind comprehends but feebly what is stated on the point, takes it upon trust as far as it understands it, and does not feel sufficient interest in it to try to understand it better. This is the ground of my conviction (which is not that of a theorist, but of one who has had long practical experience on this point), that to submit young and untrained minds to a course of science-teaching, under the idea that they will thus get sound logical discipline, and learn to think clearly and exactly is a disastrous mistake. Give the strict mental training first (and for this I believe that nothing

approaches a combination of mathematics and sound scientific classical study), and the course of physical science will become intelligible, fruitful, and delightful. Attempt a course of chemistry with a class of boys whose logical faculties are as yet in a molluscous condition, and you will find that, while they take a lively interest in a blaze, or a bang, or a very nasty smell, they are totally indifferent to the beauties of the atomic theory, gaze with blank unconcern at the diagrams by which the teacher explains the molecular combinations, decompositions, and re-arrangements which they are told took place, *but did not see*, and vote the examination and weighing of precipitates, and the calculation of the atomic proportions of the elements of a compound to be seedy and slow.

Now, I don't for a moment pretend that what I have said settles the whole question of the school curriculum. There are other points that have to be considered. But I plead guilty to having wasted your time and my own if I have not shown good grounds for asserting that the study of the classical languages is capable of being made throughout a course of sound scientific discipline for the mind, demanding at every step, and from the very beginning, the methodical exercise of the understanding under the control of logical laws. Even "a small corner of one language" will furnish materials for scientific discipline to the teacher who understands his work. The assertion that "a small corner of one language" contains *all* the materials that can be so used, and exhausts the possibilities of such discipline, and that it is immaterial in what language you select your corner, is one to which I give an emphatic denial, because from actual experience I know that it is at variance with facts. And let me assure any who may have stuck too closely to old-fashioned, blundering methods of teaching Latin, and have found the lesson too commonly an irritating weariness to themselves, and a source of disgust and distress and too often of punishments and tears to the unhappy little learners, that they have yet to find out that it is not only possible, but easy, to get even quite young pupils to take an eager interest in their Latin lessons. Boys and girls never find a lesson dull when they feel that they are made really to understand what they are about, and especially when they find that they can actually, by the exercise of their own intelligence, *do* something that calls for effort.

A great deal of dust is often thrown in the eyes of inconsiderate people by those who talk most loudly about the acquisition of *useful knowledge*. A good many sophisms would be exploded if people would but define clearly what is intended by the term *useful*. If it includes what is useful in training and developing the intellect, they have no right to talk as if the defenders of classical studies were not on common ground with them. And on the other hand, so far as the term relates to the acquisition of knowledge which may be turned to account in the business of life, let it be borne in mind that those who urge that a boy should learn chemistry, or mineralogy, or physio-

logy, or magnetism, because mankind have derived such immense advantages from the study of these subjects, they are taking credit for a great deal more than they have a right to. For the purposes of the argument they are bound to show that there is a reasonable probability that the boy in question will be able, through his own personal acquisitions, to get for himself or others some benefit over and above that which he would share with society generally from the researches and inventions of those who make these subjects the business of their lives. I am far from saying that he will not. I am sure that he will, if he learns properly; but the *usefulness* of the knowledge he acquires will be for the most part very different from what is spoken of in a good deal of the tall talk that one hears on this subject.

On the score of mere *practical utility*, seeing what a large proportion of the disputes that disturb mankind spring out of misconceptions of what each party has said or heard, how much legal injustice is perpetrated because the framers of laws were incapable of expressing their own intentions, and to what an extent unscrupulous party-writers and speakers trade upon the knowledge that men catch imperfectly and retain confusedly what has been said by those whom they desire to misrepresent, it seems to me that few studies can be more useful to one who would worthily do his part in the world's work than that which trains him in the careful examination, the accurate interpretation, and the exact reproduction of thoughts and meanings cast in a different mould from his own, and expressed in a different and unfamiliar tongue.

THE PHYSICAL BASIS OF MEMORY CONSIDERED WITH REFERENCE TO THE WORK OF THE TEACHER.

By Rev. Evan Daniel.

So far as the teacher is concerned, it might seem a matter of indifference whether memory is a purely mental or a purely physical faculty, or partly mental and partly physical. His business, it may be urged, is not to explain the mental or quasi-mental phenomena of the children whom he has to educate, but to utilize these by such methods as his experience approves, leaving the explanation of the phenomena to the psychologist and the physiologist. I admit the force of this argument within certain limits. I admit that a teacher may successfully train the memory without having any scientific theory as to its nature and mode of operation; but I am none the less sure that a knowledge of the laws of the human mind would render his work more intelligent, more agreeable to his pupils, more easy to himself, and at the same time more successful in its direct results. A larger knowledge of nature's laws is ever the first step to improvement in the application of them. Whether we study law or not, we are conditioned by it; and to know the

conditions enables us, not only to avoid violating them, but to press them into our service. We first learn from nature, then obey her, then control her.

What reason have we for believing that memory rests on a physical basis?

The same reason that we have for believing that all our mental faculties rest on such a basis. We cannot separate memory from the other so-called faculties. They are all only so many manifestations or states of the one and indivisible mind. Now, that the mind as a whole is dependent on the body, is indisputable. We find that whatever affects the brain affects the mind, and vice versâ; our mental states are affected by the state of our digestion, by hunger, by the fatigue consequent upon muscular exertion, by the purity or impurity of the air we breathe, by cold and warmth, by stimulants, by injuries inflicted on the brain, by certain diseases, by alcoholic poisoning, and so on. Conversely, mental changes affect the body. Severe mental exertion enfeebles all the bodily organs, and brings on brain disease. Mental emotions express themselves in the face, and in bodily movements. Shame, for instance, produces blushing. Again there is a correspondence between certain physical and certain mental phenomena, pointing to some close connexion between them. Thus the products of nervous waste are proportionate to mental exercise. Mental activity varies with the supply of blood; being intensified with an increased circulation and enfeebled with a defective one. Finally, there is an observable connexion between the size and convolutions of the brain and mental power. The adult human brain ranges in weight from 38½ oz. to 64½, the average of sane persons being about 47 oz. the average of insane persons being about 2½ per cent. less.

Can we go further than the recognition of these general indications of the dependence of the mind on the body, and trace the connexion between mental and physical processes in specific cases? To some extent, I believe we can.

I cannot hope, in the course of a few minutes, to describe the whole apparatus of the brain, still less to produce the evidence on which the conclusions of Mental Physiology rest; but I will endeavour to summarize in a few words the results of the most recent investigations in this subject.

Our first ideas come to us through the senses. The apparatus required for the transmission and registration of sense-impressions consists essentially of two parts, the nerves and the nerve-ganglia; the former corresponding to the wires of a telegraph, the latter to the battery in which the electric current originates. Sense-impressions, such as light and sound, set going certain blood changes in the vesicles which are connected with the outer extremities of the nerves, and thereby liberate nervous force, which is conveyed along the nerves to the sensorium. What the nature of this force is, whether molecular or chemical, we cannot say. We know that it is

not electrical, for the nerve-sheathing is inadequate to insulate the nerves as conductors, and the force travels much more slowly than electricity. It has been estimated that nerve force travels at the rate of 200 feet a second, while electricity travels at the rate of 30,000 miles a second.

The force, whatever it is, on reaching the sensorium, produces what is called conscious sensation. It then passes on to the ganglia of the cerebrum, which have the power of signalling back the impressions made upon them to the sensorium. It is to the cerebral ganglia is entrusted the higher work of the mind, viz., thought, feeling, and volition, in the conduct of which the phenomena of memory become manifest. How records are permanently made on the brain, we cannot say. Each sense is probably connected with its own particular set of ganglia, and each sense-nerve is composed of a large number of separate nerves, each having its own separate work to perform. That the ganglia are in some way modified by the impressions made upon them is certain. No force can act on matter without recording in the matter the fact of such action. The conservation of effect is only another way of stating the conservation of energy. It seems certain that the cerebral ganglia, although they are being perpetually destroyed, are capable of perpetuating their existence by reproducing themselves on the same modified type, just as a scar is reproduced on the surface of the skin, although the local matter of the skin is renewed again and again. In every case mental action depends on blood-supply and blood-consumption, the ganglia, both those of the external organs of sense and those of the brain at the other extremity of the nerves, being surrounded by capillaries from which nerve-pulp is supplied.

Attention, which has been called the graving-tool of memory, operates by determining an increased supply of blood to the ganglia engaged in any mental operation.

The association of ideas is probably to be accounted for by the allocation of special parts of the brain to particular classes of impressions, and by the connections between the various ganglia. The changes set up in one may give rise to nervous currents affecting other connected ganglia, the direction of the current being determined by the facilities offered for its travelling, the facilities being, in their turn, increased by the frequency with which the route is taken. I shall have more to say on this point hereafter.

The great facts relating to the physiology of mind which have been definitely established by the recent progress of scientific discovery, have been thus condensed by a recent writer in the *Edinburgh Review* :—

"With every expression of a mental state, and with every action of the mind, some structural change occurs in the substance of the brain. It is in that sense that the brain is the organ of the mind. The change which occurs in the brain is of a destructive character. A complex, unstable substance, formed out of the blood and

deposited in the brain-globules, is decomposed and destroyed by the agency of oxygen. The nerve-influence and mind-action are energies evolved as a consequence of that decomposition. The brain-pulp is burned for the production of brain-force. The combustible brain-pulp is deposited in minute membranous sacs, or globules, to which an abundant network of blood-vessels is distributed. Through these blood-vessels both the oxygen, which is the agent effecting the corrosive decomposition of the pulp, and the nourishment which repairs the corrosive destruction, are conveyed to the brain. The blood-circulation both wastes and sustains the brain, and in that way promotes its mental functions. The globules of the brain are produced in quite incalculable numbers, and are in a state of continuous reproduction, growth, maturation, and decay. The cerebral globules are essentially living organs, which build up the structure of the brain by the multiplication of their own minute forms. The transmission of nerve-influence and mind-force between the several aggregations of globules, and between globule and globule, is effected by means of a destructive decomposition of the pulp of the nerve-threads which meander about amongst them in all conceivable directions. With every effective current of nerve-influence there is a concomitant consumption of nerve-pulp. Nerve-substance is destroyed by the transmission of nerve-influence, as well as by the origination of mental activity."

In reference to the physical side of memory, Dr. Maudsley says:—

"That which has existed with any completeness in consciousness leaves behind it, after its disappearance therefrom, in the mind or brain, a functional disposition to its reproduction or reappearance in consciousness at some future time. Of no mental act can we say that it is 'writ in water.' Something remains from it whereby its recurrence is facilitated. Every impression of sense upon the brain, every current of molecular activity from one to another part of the brain, every cerebral reaction which passes into movement, leaves behind it some modification of the nerve-elements concerned in its function, some after-effect, or, so to speak, memory of itself in them, which renders its reproduction an easier matter, the more easy the more often it has been repeated, and makes it impossible to say that, however trivial, it shall not in some circumstances recur. Let the excitation take place in one of two nerve-cells lying side by side, and between which there was not originally any specific difference, there will be ever afterwards a difference between them. This physiological process, whatever be its nature, is the physical basis of memory, and it is the foundation of our mental functions."

It will be inferred, from what has been said with regard to the physical changes that go on in the brain, that the acquisition of new ideas involves a large consumption of energy. Professor Bain thinks that the plastic or retentive function is the very highest energy of the brain, and that to drive home a new fact, to render an impression self-sustaining and recoverable, uses up more brain force

than any other kind of mental exercise. If he is right, the power of acquiring new ideas must be largely dependent on general health, on vigour at the moment, and on the competitive demands made on our bodily energy by the mere physical functions. Good food, fresh air, reasonable but not excessive muscular exercise, reasonable intervals of mental rest, a quite happy condition of mind, are all essential to the effectual registration of new ideas in the brain.

The difference in the amount of energy which different kinds of brain-work demand has an important bearing on the school time-table. Professor Bain places next to the acquisition of new ideas exercises in which old ideas are re-combined, and lowest of all what he calls searching and noting in books. If his conclusion be right, then these different kinds of work should be distributed over the day in accordance with the varying manifestations of mental energy. The acquisition of new knowledge should be assigned to the morning, when mental vigour is at its maximum: constructive exercises to the afternoon, when the powers of the mind begin to fall off: searching and noting to the evening. This rule is contrary to the practice of many schools, which prescribe memory tasks for night when the brain is feeblest, and spend some of the most valuable hours of the morning in mere constructive exercises. I would suggest that only such tasks should be set for night as involve the utilization in new combinations of old knowledge, the making of fair copies from notes, and the searching of books of reference. Home memory tasks should be learnt before breakfast.

The work of memory is twofold: it consists (1) in retaining our ideas, (2) in reproducing them. Both parts are mainly dependent on the modes in which our knowledge is originally acquired and subsequently modified. I do not doubt for one moment that the organization of one brain may be much more favourable for the reception of certain impression than the organization of another; but there can be no question that many people complain of a bad memory who, if the truth were known, either never gave their memory very much to keep, or whose mental deposits were inaccurate and muddled when they were first put away. They seem to be surprised that ignorance has not improved with keeping, and that order has not spontaneously evolved itself from disorder.

If sense-perceptions lie at the bottom of all our knowledge, and are the raw material out of which our higher ideas are composed, it must be an enormous advantage of memory to cultivate discriminative sensibility. The senses themselves should be carefully trained, so as to render them efficient instruments; the mind should be stored with accurate sense-impressions of the various objects in the world around it; a direct knowledge of things should, as far as possible, take precedence of the knowledge of words and symbols. Many of the difficulties which the teacher has to encounter in the later stages of education arise from the neglect of the education of the senses. The eye has not been taught to see, nor the ear to hear. Words

have done duty for things, so that, when we begin to abstract and generalize, and imagine and reason, we find that we have no solid foundation to go upon. "The education of the senses neglected," says Mr. Herbert Spencer, "all after-education partakes of a drowsiness, a haziness, an insufficiency, which it is impossible to cure." To see well and to hear well is often to remember well.

In the earlier stages of education, specimens, models, pictures, black-board illustrations should be constantly used in treating every subject that admits of them. Nor is it enough to have a specimen or two placed before a class. In some subjects, such as botany and object lessons, it is desirable that each child should have his own specimen, so that it may be interrogated again until it has given up all the knowledge it is capable of yielding.

The impressions made upon the senses will, within certain limits, be deep in proportion to the attention given to them, the time during which they last, the frequency of their repetition, and the emotional excitement which accompanies them. The pleasure or pain which accompanies them will, to some extent, regulate the amount of attention, the time, and the repetition. What gives us pleasure we concentrate our attention upon that we may enjoy it the more; we dwell upon it till satiety produces pain; we return to it again and again. Pain secures involuntary attention by excluding the consciousness of other sensations; and the dread of its recurrence, or the pleasure consequent upon its cessation, makes us frequently call it up anew.

Attention, as we have seen, acts by increasing the blood-supply to the ganglia engaged in the mental operations whose results we wish to note. It thus regulates the supply of brain fuel, and saves us from registering sense-impressions which we do not wish to retain. Persons of quick apprehension often let go their knowledge as quickly as they acquire it. This is probably because attention has not been long enough sustained to permanently modify the ganglia concerned.

As sense-perceptions accumulate, we first insensibly, and then consciously, classify them. We group objects that have something in common: we subdivide large classes into smaller ones; and these into smaller ones still. In this way a multitude of objects that at first sight seemed entirely isolated and incoherent, are collected into a few simple classes, and a few common names serve to designate, it may be, millions of individuals included under them. This mental process has an important bearing on memory. Not only is it easier to retain in the memory a few classes than thousands of individuals, but when the basis of classification is thoroughly understood, one class calls up another class. Muddled and confused knowledge is almost invariably the result of neglecting to classify, or of endeavouring to remember a classification without an intelligent understanding of the idea on which it rests.

"Marshal thy notions," says old Fuller, "into a handsome method.

One will carry twice more weight trussed and packed in bundles, than when it lies untoward, flapping and hanging about his shoulders. Things orderly fardled up under heads are most portable."

Children should be led to perceive unity underlying heterogeneity, and then be required to classify for themselves. Some subjects lend themselves more readily to classification than others, but none do not allow of it at all.

It is but a step from classification to generalization, but it is a very important one to take. Wherever it is possible, children should be taught to draw from their knowledge general principles, and then apply them to particular cases. In inductive lessons the former course will be pursued; in deductive the latter. The great advantage to the memory of this mode of procedure is, that the knowledge of a general law is more easily carried than the separate cases coming under it, while the effort involved in applying it in new cases perpetually brings it anew before the mind. In subjects like Grammar, rules should be first established by examples, and then appealed to in parsing and syntax. Text-books almost invariably start from definitions and principles. I would first get children to establish both for themselves, and then fix them in a form of sound words, which should never be departed from. It is sometimes contended that this form of sound words should be committed to memory first, and subsequently explained, the argument urged being that the teacher has then something to go upon. But the habit of committing words to memory without understanding their meaning is a most undesirable one to foster. If children think at all, they are as likely as not to attach to words so learnt a wrong meaning, which will cost the teacher much trouble to eradicate; if they do not think, they will imagine that a knowledge of the words dispenses them from the labour of understanding their significance.

(To be continued.)

GOVERNMENT CENTRAL BOOK DEPÔT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th February 1879 to 15th March 1880.

New editions published.

	Rs.	a.	p.
ENGLISH.			
Howard's Second Book, Part I.	0	1	6
MARATHI.			
Puranik-Bhugol Khagol	0	10	0
GUJARATI.			
Hope's Gujarati Grammar.....	0	1	3

N. V. BAPAT,
Curator.

DEPARTMENTAL NOTICES.

Travelling-Allowance.

NOTIFICATION.

The subjoined Government Resolution No. 383, dated 30th January 1880, Financial Department, is published for the information of Educational Officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction, March 1880.

Pay and Allowances. No. 383.

FINANCIAL DEPARTMENT.

Bombay Castle, 30th January 1880.

Resolution of the Government of India, Department of Finance and Commerce, No. 258, dated 21st January 1880:—

"Read again—

"Financial Resolution No. 1497, dated 28th March 1879, prescribing that every officer drawing railway-mileage or fare shall attach to his bills one or other of the two following certificates at his option, viz., either—

(1). 'I certify that I travelled on this journey by the first class (or as the case may be, first or second class);'

or

(2) 'I certify that I paid not less than the amount here charged in railway fares for myself, my family, my servants, and my personal luggage.'

"RESOLUTION.—A question having arisen whether an officer, who certifies that he paid in railway-fares for himself, his family, his servants, and his personal luggage, an amount less than the amount to which he would be entitled as mileage, should be paid his actual expenses or travelling-allowance at the rate to which the actual railway accommodation used by him would entitle him, the Governor-General in Council is pleased to decide that an officer furnishing the second of the certificates prescribed by the above Resolution is entitled to draw the amount of the charges so certified, provided that they do not exceed the amount of travelling allowance to which he would have been entitled if he had travelled in the class in which he is entitled to accommodation."

RESOLUTION.—Copies to be forwarded to all Departments of the Secretariat and all Heads of Offices under the Civil Departments of the Secretariat, for information and guidance.

2. The Resolution should also be published in the *Bombay Government Gazette*.

JOHN NUGENT, Acting Secretary to Government.

TO ALL DEPARTMENTS OF THE SECRETARIAT; all HEADS of OFFICES under the CIVIL DEPARTMENTS of the SECRETARIAT; the ACCOUNTANT-GENERAL.

Travelling-Allowances.

NOTIFICATION.

The subjoined Government Resolution No. 775, dated 1st March 1880, Financial Department, is published for the information of Educational Officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
11th March 1880.

Travelling-Allowances. No. 775.

FINANCIAL DEPARTMENT.

Bombay Castle, 1st March 1880.

Resolution of the Government of India, Department of Finance and Commerce, No. 885, dated 20th February 1880.

"Read again—

(1) Resolution No. 481, dated the 23rd January 1873, ruling 'that a Commissioner in Bengal, when required to proceed beyond his jurisdiction on the public service, can draw no travelling allowances other than his fixed travelling-allowance without forfeiting that allowance for the whole period of his absence from head-quarters on such journey.'

(2) Paragraph 2 of letter to the Accountant-General, Punjab, No. 743, dated the 31st January 1873, applying the foregoing decision to the case of the Commissioners in the Punjab.

(3) Notification No. 3622, dated 22nd September 1876, ruling 'that, whenever the actual personal fare, including freight of personal baggage only, paid by any officer in the receipt of a fixed monthly or daily travelling-allowance for a duly authorized journey on public duty by rail, steam, or other public conveyance, exceeds the amount of his fixed travelling-allowance for the day on which the journey is made, he may for that day draw, in lieu of his fixed allowances, the travelling-allowance to which he would have been entitled if he had no fixed travelling-allowance.'

RESOLUTION.—The Governor-General in Council directs, in supersession of all previous orders, that, whenever the actual personal fare, including freight of personal baggage only, paid by any officer in the receipt of a fixed monthly or daily travelling-allowance for a duly authorised journey on public duty by rail, steamer, or other public conveyance, exceeds his fixed travelling-allowance for the day on which the journey is made, he may for that day draw, in lieu of his fixed allowance, the travelling-allowance to which he would have been entitled if he had no fixed travelling-allowance.

"2. The words 'public conveyance' in this rule do not include a palanquin, carriage, boat or other conveyance hired for the special use of the officer, but mean a conveyance which plies regularly for the carriage of passengers on the journey for which the charge is made. These orders do not affect the numerous cases in which officers are entitled to convert a daily allowance to mileage."

RESOLUTION.—Copies of the Resolution of the Government of India should be forwarded to all Departments of the Secretariat, and all Heads of Offices under the several Departments of the Secretariat, for information and guidance.

2. The Resolution should also be published in the *Bombay Government Gazette*.

JOHN NUGENT,
Acting Secretary to Government.

TO ALL DEPARTMENTS OF THE SECRETARIAT; ALL HEADS OF OFFICES UNDER THE CIVIL DEPARTMENTS OF THE SECRETARIAT; THE ACCOUNTANT GENERAL.

Rules for Admission to the Public Service.

NOTIFICATION.

The subjoined Government Resolution No. 400, dated 27th March 1880, Educational Department, is published for the information of Educational Officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
31st March 1880.

No. 400.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 27th March 1880.

Letter from the Director of Public Instruction, No. 4053, dated 11th December 1879,—Submitting, with his remarks, the report of the Committee appointed to estimate the falling off in the numbers of students receiving high education in Arts; and suggesting, in conclusion, a slight modification in the rules proposed therein for the employment of candidates for Government appointments.

RESOLUTION.—The acknowledgments of Government are due to the Committee for their very interesting and careful report, and to the Director of Public Instruction for his remarks upon it.

2. It is satisfactory to find that the falling off in the numbers of students receiving high education in Arts is, all things considered, not very large, and that it is not apparently due to any radical defect in the system of education, or to any causes which call for special remedy.

3. At the same time the Governor in Council concurs in the expediency of the proposals submitted by the Committee, as slightly modified by the Director of Public Instruction, for increasing the stringency of the restrictions regarding the educational test for the admission of Natives into the public service and directs their adoption. They are as follow :—

(1) Candidates who have passed the Matriculation shall have a preferential claim to vacant appointments over candidates who have merely passed the Public Service Examination (First Class), unless these last hold the 2nd year certificate for the Agricultural High School Class.

(2) Candidates who have passed the F. A. Examination shall have a preferential claim for situations of Rs. 30 and upwards over candidates either in or out of the service who have merely matriculated.

(3) At least one-half of all vacancies in Departments other than the Revenue Department, of the value of Rs. 50 per mensem and upwards, shall be given to graduates, especially to graduates of distinction.

4. These Rules should be published in the *Bombay Government Gazette*, and be made generally known throughout the Presidency by all Departments.

(Signed) C. GOKHE,
Chief Secretary to Government.

TO THE DIRECTOR OF PUBLIC INSTRUCTION; J. G. MOORE, Esq., C.S.; T. B. KIRKHAM, Esq.; G. W. FORREST, Esq., B. A.; ALL DEPARTMENTS OF THE SECRETARIAT; THE PRINCIPAL OF THE ELPHINSTONE COLLEGE; THE PRINCIPAL OF THE DECCAN COLLEGE.

Teaching of Etymology.

EXTRACT FROM PRINCIPAL OXENHAM'S REPORT ON POONA HIGH SCHOOL.

"(1). After completing my examination of the papers which I looked over I was impressed by the character of the etymology and thought it well to send the head-master a short note or minute on the subject. When Professor Selby's report came into my hands I found that he also had been led to almost identically the same criticism by the examination of his papers. I further find that the same criticism has been made by previous examiners,* and I therefore have considerable confidence in suggesting that the existing mode of teaching English etymology in the Poona High School might with advantage be radically changed. At present the boys are taught that a given English word "comes from" another word also given, which is said to be Latin or Greek. Few boys usually know Latin or Greek; and the intermediate forms

* See pp. 196-8 of the *Educational Record* for September 1874, and pp. 154-8 of the July number for 1875.—*Ed. B. E. R.*

through which the modern English word is derived from the (assumed) original are not mentioned; nor is the connection in meaning pointed out; *e.g.* I was told by many boys that scandal comes from the Greek scandalo (often scandalon) which comes from the *Latin chaos*, I slip! I venture to suggest that all such etymology is useless, and that it would be far better to omit all mention of the words in Greek, Latin, or other unknown tongues; *e.g.* I would tell boys that squirrel is derived from a word which means shadow-tail and I would not mention the actual Greek word or the succession of Latin, Romance-Latin and French words through which skiouros has become squirrel. I believe much time is worse than wasted in learning by rote manuals of etymology, and that it would be wise to prohibit teachers often ignorant of Latin and Greek themselves to mention any Greek or Latin words at all as the origins of English words. Let the teacher explain to the utmost of his knowledge how the English word derives its present meaning from an original with an apparently different meaning. This would interest boys and be sound teaching, but let him discourage the use of manuals of etymology and all learning by rote of words not understood. Dr. Kielhorn concurs with me in this suggestion."

The foregoing remarks on etymology from the Principal Deccan College on the annual examination of the Poona High School are published for the information of Educational Officers in the Central Division.

T. R. KIRKHAM,
Acting Educational Inspector, C. D.

Poona, 27th March 1880.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT, FROM THE 16TH FEBRUARY to 15TH MARCH 1880.

19*th February* 1880.—Leave without pay, from 26th February to 9th March 1880, is granted to Mr. L. C. Bapat, Acting 9th Assistant Master, Satara High School.

21*st February* 1880.—Nine days' leave, without pay, is granted to Mr. Gopal A. Bhat, First Assistant Master, First Grade, Anglo-Vernacular School, Sholapur.

21*st February* 1880.—Fourteen days' sick leave is granted to Mr. N. R. Kale, Fourth Assistant Master, Rajaram High School, Kolhapur.

21*st February* 1880.—Mr. V. R. Kunthekar, is appointed Acting Fourth Assistant Master in the Rajaram High School, vice Mr. Kale.

23rd *February* 1880.—Twenty days' leave, on private affairs, is granted to Mr. Bhagwandas Brejbhukandas, First Assistant Master, Poona Camp, First Grade, Anglo-Vernacular School.

23rd *February* 1880.—Mr. Dorabji Karsetji, Second Assistant Master, Poona Camp, First Grade, Anglo-Vernacular School, is appointed Acting First Assistant Master in the same School.

23rd *February* 1880.—V. B. Godbole, Assistant Deputy Educational Inspector, Khandesh, and Mr. W. K. Vaidya, Assistant Deputy Educational Inspector, Tanna, are directed to change appointments.

23rd *February* 1880.—Three weeks' leave, without pay, is granted to Mr. G. K. Sabde, Head Master, Jagannath Sankarshet First Grade Anglo-Vernacular School, Bombay.

25th *February* 1880.—Mr. R. H. Agashe, Assistant Deputy Inspector, Satara, is appointed Assistant Deputy Inspector, Nasik and Ahmednagar.

26th *February* 1880.—Mr. P. E. Dhamdhar, is appointed substantive *pro tem.* Sixteenth Assistant Master, Poona High School, *vice* Mr. Mitra, on leave.

27th *February* 1880.—Three weeks' leave, without pay, is granted to Messrs. K. M. Ragavendrarao and S. B. Bhate, First and Second Assistant Masters in the Karwar High Schools.

27th *February* 1880.—Mr. Harilal H. Dhruva, B. A., is re-appointed a Fellow in the Gujarat College.

27th *February* 1880.—Mr. B. M. Bhandivadekar, Head Master Malwan Vernacular School, is appointed Assistant Deputy Inspector, Satara, on probation.

1st *March* 1880.—A month's sick leave is granted to Mr. Rago, Agricultural Teacher in the Nasik High School.

2nd *March* 1880.—Mr. Damodhar Ganesh Kelkar is re-appointed Acting First Assistant Master, (Marathi side), Elphinstone High School, during the absence of Mr. Tarkhadkar.

6th *March* 1880.—Three months' sick leave is granted to Mr. R. K. Bhende, Acting First Assistant Master, Narayen Jagannath High School, Kurrachee.

6th *March* 1880.—Mr. W. M. Samarth, B.A., is appointed Acting First Assistant Master, Narayen Jagannath High School, Kurrachee, *vice* Mr. Bhende, on leave.

15th *March* 1880.—Mr. Kalich Beg Fredun Mirza is appointed substantive *pro tem.* Persian Teacher, Kurrachee High School, *vice* Mr. Doulatram, on leave.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
18th *March* 1880.

THE

Bombay Educational Record.

No. 5.] MAY 1, 1880. [Vol. XVI.

THE MONTH.

The report of the Syndicate of the Madras University for the year 1879-80 is, as usual, a full and interesting one. It gives the alterations made in the bye-laws, numerous tables showing the results of the examinations held by the four Faculties, the examiners' remarks on the candidates' answers, a statement of receipts and expenditure, and a list of the books added to the University Library. The chief change made in the bye-laws was an addition to clause 91, to the effect that no candidate shall hereafter pass who fails to obtain 40 per cent. of the 350 marks allotted to the English Language, Literature, and Prose-Composition papers. The results of the examinations may be briefly summarised as follows:—

Examinations held in 1879-80.	No. Examined.	No. Passed.			
		Class I.	Class II.	Class III.	Total.
Matriculation	3,309	51	1,043	...	1,094
F. A.	582	47	248	...	295
B. A.	175	3	46	36	85
M. A.	7	...	...	...	2
B. L.	29	...	...	4	4
M. L.	2	...	...	...	...
M. B. & C. M.	3	...	...	...	3
L. M. S. (1st)	6	1	3	...	6
L. M. S. (for degree)	2	...	2	...	2
B. C. E.	8	...	3	2	5

In Matriculation the four institutions at the head of the list came out as follows :—

	No. Examined.	No. Passed.		
		Class I.	Class II.	Total.
Madras Christian College	125	4	49	53
Kumbakonam College, Tanjore ...	95	5	40	45
Presidency College	69	2	43	45
Pachappa's High School	117	2	33	35

The thesis set in the examination for Vernacular composition was

Oh what a tangled web we weave,
When first we practise to deceive.

A great many of the candidates took the meaning of this couplet to be—"he that begins to deceive others must be as cunning in spreading his snare as the spider in weaving her web." Some candidates wrote an essay on the art of weaving, dwelling at length upon the manner in which weavers deceive their customers; and others wrote two essays—one on the art of weaving, the other on the art of deceiving. Altogether the examinees seem to have been greatly exercised by this thesis; and the examiners certainly could not complain, as a well-known examiner in England seems recently to have done, that the papers rarely contained any comical blunder to relieve the tedium of looking over them.

The fee-receipts from examinees amounted to Rs. 53,570. Examiners' fees came to nearly Rs. 38,000; contingencies to more than Rs. 10,000; the salaries of the Registrar and his establishment to rather more than Rs. 5,000.

At the half-yearly meeting of the general council of the University of Edinburgh last month,—Principal Sir Alexander Grant in the chair—it was reported that the university court had resolved to institute a new degree to be entitled L.A., or Literate of Arts. Professor Blackie stated that an endowment of 30,000*l.* had been obtained by subscriptions for the chair of Celtic language and literature which it was proposed to found in the university, and that this was invested in land securities in such a manner as to secure a clear salary of 800*l.* a year for the professor to be appointed.

Five years ago the Hon. Mr. Gibbs in his Convocation-speech spoke of the crowds of "thin, pallid, sickly-looking youths" who came up from our schools and colleges to the University Examinations, and he gave it as his opinion that many of them were being educated at too high a pressure. No one who felt the truth of this remark could now visit the class-rooms and play-grounds of Elphinstone and some other public schools in the town without being struck with the change that has come over the Bombay student. His enthusiasm for cricket and other games is almost as great as that of the public-school-boy in England; and hollow chests and pale faces are comparatively rare. Many a Hindu and Parsi will hereafter be able to say with a heartiness, but seldom observable in their seniors' reminiscences of the play-ground,

> I have had playmates, I have had companions
> In my days of childhood, in my joyful school-days.

It would be interesting to learn how far the late Vice-Chancellor's indictment might still be applied to boys in our Middle and Primary Schools. It has seemed to us that the pupils in them rarely play together and that they take life somewhat sadly. Few village-schools have a play-ground or a simple gymnasium; and few masters seem to encourage school-games. The opinions of Educational Inspectors and of the Revenue Officers would be valuable on this point.

It will be seen from two articles, which we print further on, that many people in England are now protesting strongly against the high pressure at which the children in English Elementary Schools and in Middle Class Girls' Schools are being instructed, to the neglect of physical exercises and happy social intercourse out of lesson-hours. They complain that the Education Department has for years been "screwing up the standards," and that the grant-in-aid system is having a bad effect upon teachers, who believe that "their duty simply consists in enabling their pupils to pass a certain examination."

OVER-PRESSURE.

The correspondence on the subject of Educational Over-pressure is still going on in some of the daily journals. Doctors, male and female, have lifted up their voices in loud condemnation of the long hours which children spend in school, the many subjects which they take up, and the frequent examinations which they undergo. Parents re-echo the complaint; and we are perfectly sure that, if children could make their voices heard, they would swell this consentient chorus. What have teachers to say on the subject?

Nobody complains of over-pressure at our public schools. There the general complaint is that studies are sacrificed to athletics, and that the majority of boys are more ambitious of distinguishing themselves at cricket and football than in examinations. The schools which have incurred severest condemnation are Girls' Schools for the middle classes; and in these schools there is, undoubtedly, much room for reform. The examinations for which these schools prepare are mainly the Oxford and Cambridge local Examinations, which, after requiring certain indispensable subjects, are of a highly elastic character, allowing the pupils to take up a larger number of subjects than any single mind could ever master. Lists of the successful candidates are published, and every means is employed to heighten the distinction which a good name in the Class-lists confers. The distinction is, of course, great in proportion to the area from which the candidates are drawn. Each child is pitted against all England. By way of preparation for the examination every exercise throughout the year is marked; periodical examinations are held, and places assigned according to their results; and ambition and emulation are excited by every conceivable expedient. Home lessons are heaped on the top of school lessons, so that nearly the whole of a child's waking existence is spent in study. Physical exercise, social intercourse, the acquisition of womanly arts and accomplishments, are all sacrificed to the lessons that are to be prepared for next-day.

Two circumstances aggravate the evils of this system. The home tasks, instead of being prescribed by one person, who might see that they were not unduly long and unequally distributed, are set by separate teachers, each of whom is interested in getting as much work done in her own subject as possible, the marks obtained by the pupils in each subject being published, as well as the names of the pupils. The other circumstance is the enormous disadvantage girls are under from being cut off from physical sports. The playground in a public school is a healthy supplement to the school itself; it creates ambitions of its own; and these, to some extent, neutralise the effect of emulation in intellectual contests. But girls have no proper playground, and few healthy games. Drill is a poor substitute for play; it affords little gratification to the love of distinction; it allows less personal liberty than class employments; it reduces the individual to a machine; it is formal, monotonous, and mechanical. Play, on the other hand, ministers to the love of liberty, affords a convenient outlet for exuberant animal spirits; nurtures new and healthy forms of the desire of power and distinction; and, by the demands which it makes upon the attention and the energies, affords a complete distraction from study. Even where there are facilities for playing, girls are often prevented from indulging in healthy games on the ground that such games are unladylike. The consequence is, their thoughts are never taken away from their studies. They live in an atmosphere of marks. They

wake wondering what marks they shall get for the work of the day; they translate every bit of knowledge they acquire, and every answer they give, into marks; they spend their intervals of recreation in comparing marks and discussing their justice; they bring their marks home to gladden ambitious parents, who little know at what expense these marks are purchased; they regulate their private studies by their mark-producing powers; they go to bed with marks on the brain, to dream of marks. The child is converted into a little mark-miser—the sadder to contemplate because she is a child. Well is it, if, in the process, unduly stimulated emulation have not begotten envy, malice, and uncharitableness, and not led to the disparagement and neglect of the higher moral and religious duties. The physical consequences of this constant over-pressure are most disastrous. Large numbers of bodily ailments are primarily referable to it, and many others are greatly aggravated by it. Dr. Richardson has recently asserted that a good fourth of the deaths of adults who die in their prime from what are called natural diseases, are due to diseased conditions of body that have been induced by mental influences. Of these influences educational blunders rank among the most serious.

The remedies for the evils we have pointed out are partly in the hands of teachers, and partly in the hands of parents. Parents must not allow their children to take up too many subjects, or devote too much time to home-lessons. They must discourage the excessive ambition for school-distinctions, and foster the love of knowledge for its own sake. They must show that there are other things to be thought of besides examinations and prizes. Teachers must reduce the hours of school-work; must make provision for the healthy development of body as well as mind; must use a wiser discretion in the selection of subjects which they undertake to teach; and, above all things, must moderate the spirit of emulation which is now so mischievously abused. Dr. Richardson holds that boys under twelve should not be pressed with more than four hours of work, and girls with not more than three hours, daily; and that, after this time, more and more time should be apportioned until a maximum of six hours for both sexes was reached. But worse than work is worry—the constant feeling that we have more to do than we can accomplish; the constant anticipation of consequences; the restriction of all thought and effort to one end, and that a paltry selfish one. Marks must be used with moderation; examinations must be cut down; and the poor, suffering, toiling mind must be allowed intervals of repose and change of occupation.

There is too much reason for believing that the children in our Elementary Schools also are working under too high a pressure. Many of these children are the offspring of uneducated and unintellectual parents, with little natural aptitude for learning, and with few of those home advantages, which children in the higher ranks of society enjoy. Many of them are physically weak, and incapable

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in consequence, of much mental exertion. Yet they are all treated alike, as though they were so many lumps of clay of uniform quality, capable of being turned out like bricks of exactly the same sort. They are subjected to the same examinations, and carried along at the same pace. To a certain extent this is inevitable where children have to be educated in large numbers. The teacher cannot take much cognisance of each child's individual peculiarities. But the Education Department may do much to regulate the pace at which children are carried on. For years it has been "screwing up the standards," and people are to be found who rejoice at each turn of the screw. If they could see the brains that were addled, the childish happiness that was marred, the disease that was begotten, and the life itself that was screwed out, they would contemplate our educational advances with less satisfaction. Managers may do much towards mitigating the evil complained of by minimising the temptations to over-task children, to which teachers are exposed. Salaries should not be made too largely dependent on Government grants; too much importance should not be attached to high percentages of passes in filling appointments; and teachers should be encouraged to make the promotion of the real welfare of the children the one object of all school-endeavour.—*The School Guardian.*

The *Times* observes:—"The Englishman certainly need be under no fear that his young fellow-countrymen of the upper and upper-middle classes are having the ganglions of their brain overfilled to bursting. Well-to-do English masculine brains are made in boyhood with cells, which shut from the inside, and which no teachers can open from without. The owners are very much in the habit of going out for a walk and locking the doors behind them, while the preacher on the wrong side is charming over so wisely. If the danger have any existence in this country, the signs must be sought in schools for young ladies and elementary schools. In respect of both these classes, the evidence, it must be admitted, indicates that a certain number of children suffer from the consequences of over-study. In elementary schools, the subjects taught are not in themselves very many; but they are many in comparison with the intelligence subjected to the strain. Children of artisans and agricultural labourers seldom enjoy the advantage of an hereditary predisposition to learning. Still worse, all their domestic circumstances render for them the track of letters especially rough and uphill. The child who desires to satisfy his teacher prepares his lessons amid the noise of a large family. At every moment he is liable to be disturbed by some call to other duties. Probably he meets no sympathy in his labours. When there is sympathy it is of a kind to spur the willing horse instead of smoothing the way. The boy or girl of strong nervous susceptibility is likely to struggle the hardest against the moral and mental distractions which thus beset the path of knowledge. Such a child, ill-clothed, ill-fed, and without pastimes, may easily fall a prey to the nervous exhaustion which Miss Sophia Jex-Blake has compassionately

deprecated in our columns. In the opinion of Mrs. Garret-Anderson, a multiplicity of subjects and the perpetual whip of public examinations induce the same evils still more generally in the modern girls' school. A schoolmistress of the modern and improved order is tempted to regard herself as a missionary among her sex. Nothing, by common consent, could have been less scientific than the old type of feminine education. The mistress of the high school feels herself commissioned not merely to teach, but to convert. Enthusiasm is catching, and her pupils develop the zeal of proselytes. Mrs. Anderson considers that the mother, in the more usual case where the overdriven girl is a pupil at a day school, is primarily to blame. Parents are either unwilling that their daughters should not learn all that their companions learn, or are too indolent and careless to observe that the pressure is extreme. Were it the question whether the parent or the mistress ought to experience the more remorse at the premature decay of a promising pupil, Mrs. Anderson's adjudication against the former would, doubtless, be equitable. When, however, the point in which the public is interested is the cause of the ill-health, with its possible remedies, it is useless to censure the mother. Only the schoolmistress, at all events as women are constituted at present, has the ability to measure the pressure of education and the degree of endurance of the recipients. On the teachers, alike in boarding and in day-schools, and on the council and managers, if any, that control them, the obligation will practically be held to rest of seeing that mind and body are not unduly burdened."

MARY CARPENTER.*

THE world has its great women as well as its great men, though their work is generally of the quieter kind; they make less show, but they often do more good; and it is not till they are dead and gone that their meritorious deeds are appraised at their true value. The subject of this memoir was one of those whose whole life was a prolonged course of public usefulness; yet so unobtrusively did she work that, though by no means unknown amongst contemporary philanthropists, it was not till she had passed away that even her best friends became fully aware how much she had done, with what struggles, with what persistent self-mastery, and with what noble results. Practically she was the foundress of our Industrial and Reformatory School systems. Not that she first started the idea, for that had been floating about for some years before she took any active part in them; but it was her energy, her tact, her industry, and personal effort that brought mere abstract theories into concrete shape, and set them practically and effectively to work. She

* *The Life and Work of Mary Carpenter.* By J. Estlin Carpenter, M.A. Pp. 495. Macmillan & Co.

lived to see the principles, which she had laid down, universally adopted, sanctioned by Parliament, put into practice by the Government, promoted by the leading philanthropists of the day, and productive of good beyond her most sanguine hopes. More than this, she was enabled to undertake other work in India and America, setting machinery in operation in both those places, and imparting to those, who worked it, something of her own ardent benevolence, meek wisdom, and glowing zeal.

In his Preface to this interesting Biography, the author says that "the chief object of his book is to tell the story of a life of singular activity and far-reaching usefulness, in the hope that some who are engaged in the same or in like duties may be helped by beholding the persistence of a woman's devotions." A perusal of every page of the volume assures us that this laudable object is not likely to fail of its accomplishment. But we hasten to put the reader in possession of the salient portions of her life and work. She was born at Exeter, in the year 1807, the eldest of a family of six. Her father was Dr. Lant Carpenter, a well-known Unitarian Minister, who afterwards presided over the principal congregation of that communion at Bristol. He also took pupils, amongst whom Mary Carpenter appears to have received from her father a careful education in higher subjects than were then usually taught to girls. When about twenty-three, she and a sister opened a school for girls, under the superintendence of her mother. Three years later she became acquainted, at her father's house, with a remarkable man, now forgotten, but worthy of long remembrance as a pioneer in the conversion of India—the Rajah Rammohun Roy. His splendid attainments, his persevering inquiries until he had convinced himself of the truth of Christianity, and his ardent desire to do something on a great scale for the conversion of India, fired the quick spirit of this earnest worker, and made her look to India as a most glorious field of Christian enterprise. She had already made a sort of vow to dedicate her life to works of usefulness; and the example of this new friend gave an Eastward turn to her zeal. But thirty years were destined to intervene before that work could be even begun. Many pressing calls employed her nearer home. Rammohun Roy died after a short illness, to the infinite grief of all who had formed high hopes of him, and to a large circle of English friends and admirers. Shortly after his death another friend of her father—from the Western world this time—Dr. Tuckerman, came on a visit. He had been remarkable in the United States for the zeal and tenderness with which he had taken up the cause of destitute children. It was the hobby of his life; and when traversing the worst streets of Bristol his heart was moved at the squalor and crime that abounded. The subject was much talked of in the family, and one result was a resolution on the part of Mary Carpenter to make the reclamation of lost children the work of her life. One day, walking along Lewin's Meade—a squalid Bristol street—

'A miserable, ragged boy darted out of a dark entry, and rushed wildly across their path. "That child," remarked Dr. Tuckerman, "should be followed to his home and seen after." Nothing further occurred, but the observation was not lost. Six-and-thirty years afterwards she still recalled the incident as one of the quickening moments of her life.' (P. 45.)

From that time she sought opportunity of carrying out her grand object. She began in a humble way. A society was formed for visiting and helping the poor; she was its secretary, and took the worst district, where she gained her first insight into what she called "the perishing and dangerous classes." This was a trying position for a young woman of twenty-seven.

'From the geological cabinet, the drawing board, the well-stocked library of history and poetry, and all the bright and cheerful associations of refined family life, she had to plunge into the midst of squalor and misery, such as few cities in the kingdom could have presented. The narrow courts reeking with filth, the dark alleys, the wretched tenements, where every room had its own degraded inmates, filled her at times with unutterable loathing and disgust. The scenes, which she witnessed, fastened on an imagination peculiarly sensitive, rose in her nightly visions, and at times caused her painful excitement, well nigh intolerable. But she would not forsake the cause she had espoused. Again and again she had to force herself into contact with the foul air and fouler life that lay so near the peace and sweetness of her home; but, once there, the springs of pity were immediately unloosed, and what was begun with stern and almost desperate resolve was continued with free and spontaneous love.' (P. 48.)

A few years later she took up Ragged Schools with much eagerness. They seemed to realise her aims, and to furnish the machinery of which she was in search. She established one in Bristol, and became its superintendent. It was the beginning of a wonderful career among poor children. At this she worked devotedly.

'Two nights every week were regularly given, at no matter what social sacrifice, to the evening school; and day after day found her in the same haunt, ready to take a class, to preside over the midday distribution of soup to the most needy, or even to bear the sole charge of management, if sickness kept the master away. By this constancy she soon acquired a complete familiarity with the ways of the scholars, and also with the habits of the neighbourhood. Strong in the power of a sacred purpose, she was perfectly devoid of fear, and would traverse, alone and at night, courts into which policemen only went by twos. The street quarrel was hushed at her reproof, as a guilty lad slunk away to avoid her look of sorrowful reproach; and her approving word, with the gift of a flower, a picture, or a Testament, often made sad houses cheerful, and renewed the courage of the wavering.' (P. 110.)

This led to yet wider views. She began to feel that prisons could do nothing to reform young criminals, and she set herself to think what substitute could be found. She made, at this time (1850), the acquaintance of Mr. M. D. Hill, who warmly entered into her views. Thus encouraged, she wrote her first book, entitled "Reformatory Schools for the Children of the Perishing and Dangerous Classes," in which she discussed what could be done. This work gave a great impetus to the movement; and Miss Carpenter found it necessary to seek volunteers to help her, first in London and then in the North. Already there was much interest and scattered opinion in favour of this work: but it needed to be organised into a working system, and to this Miss Carpenter devoted herself with much courage and industry. A meeting was held at Birmingham under the presidency of Lord Lyttelton, when it was resolved to found three classes of schools:—

"First, *Free Day Schools*, for children who had not yet made themselves amenable to the law, but who, by reason of the vice, neglect, or extreme poverty of their parents, were not admitted into the existing Day Schools; secondly, *Industrial Feeding Schools*, for those who had subjected themselves to police interference by vagrancy, mendicancy, or petty infringements of the law, attendance being enforced by the magistrates, and the cost being in part recovered from the parents; thirdly, *Correctional and Reformatory Schools*, for those who had been convicted of felony, or such misdemeanours as involved dishonesty, the magistrates being empowered to commit juvenile offenders to such schools instead of to prison." (P. 157.)

Thus began, in unpretending form, the great Reformatory and Industrial system now planted so usefully in many parts of England and still extending. Shortly afterwards some property was acquired at Kingswood, near Bristol, consisting of a house and twelve acres of land. Further funds being subscribed, the place was furnished and opened, and a beneficent work began, which is still going prosperously on. In 1853, Miss Carpenter published her second book, "Juvenile Delinquents; their Condition and Treatment," in which she investigated the causes of crime, the condition to be dealt with, and the process of recovery. For this her experience at Kingswood gave her unique qualifications. Whole pages give us accounts of the depravity, ungovernableness, and desperation of some of these children. But their benefactress had the secret of powerful sway within her in the thorough gentleness and love that ever reigned there. Time showed her how to apply these without waste, and to combine the firm government of fixed rule with the tenderness that can allow for and make exceptions. She possessed a wonderful insight into child-nature, and the conditions of success in her work. We constantly come upon such wise sentences as this:—"The child must be placed where he will be gradually restored to the true position of childhood." It was the

adoption of this principle that led her so far towards success as to enable her to say :—

'You will be pleased to hear that our Kingswood boys are improving delightfully; indeed, a greater change has come over them in the last two months than I should have thought possible. This I attribute chiefly to our gardener, who makes them take delight in their work; indeed, the effect of the agricultural training upon them even surpasses my expectations. The girls, too, have made much progress, though not nearly so much.' (P. 194.)

So it came to pass that punishment was needed no more; the little colony (containing sixteen boys and thirteen girls) was becoming to many of the inmates a true home. The boys might be sent on errands to Bristol; even thievish girls could be trusted in the village with money, which they never thought of appropriating; and no one ever desired to run away.

Thus the movement went on in spite of disappointments, and two years afterwards Miss Carpenter was able to open a new school in the Red Lodge, Bristol, an ancient Elizabethan house, well adapted for the purpose. Hither came the girls from Kingswood, leaving the boys in full possession, and here Miss Carpenter reigned till her death. But her endeavours were ever stretching out into further efforts. The year 1857, which saw the foundation of the Social Science Association, immediately brought fresh claims upon her attention. Her experiments and investigations were carried on with unflagging spirit, and the results communicated in papers on special points from time to time. From schools she passed to convicts; and these were, in 1864, made the subject-matter of her third book. Two years later her interest in India was powerfully reawakened, and she resolved to go and see for herself what could be done for the women of that land; without, in the least, relinquishing her work at home, which was to be carried on in her absence on her own plans. In her sixtieth year, and perfectly unattended, she took leave of her brother at Paris in 1866, with her face towards the East. She had now become a person of importance, and the Government of the day regarded her expedition to India as a matter of public interest. On her arrival at Bombay she was astonished to find that the Governor had issued a circular on "Education and Prison Discipline," in which he said :—

'On questions connected with these and other cognate subjects, Miss Carpenter's opinion has, for many years past, been sought and listened to by legislators and administrators of all shades of political opinion in England; and His Excellency in Council looks forward to her visit to Bombay as likely to be of great public benefit, by aiding in the solution of many problems with regard to which much has yet to be learnt in India, from the results of late European inquiry and discussion.' (P. 323.)

Her mission was to Indian women; and to this she soon added its prisoners and youthful criminals. Very little observation convinced

her, contrary to her preconceived ideas, that it was practically impossible, at that stage, "to engraft English culture upon Hindu family life." She found the best Girls' Schools *kept and taught by a man*; and she saw at once that, if these girls were to have proper training, women must be at the head.

In 1867 she returned to England, full of gratitude and hope, to take up the work which she had temporarily left in other charge. But her hand had been set to the Indian plough, and there seemed no excuse for looking back. She had already done great good, and there was more opening out to her. It was proved that India wanted her; and to India again she resolved to go, intending to establish a Voluntary Female School at Ahmedabad. In November 1868, she was again at Bombay, and in full activity; but in the following spring her health broke down, and she had to return to England. As soon, however, as her health was re-established, she started on a third journey. She found the school she had commenced, progressing under an excellent English teacher, who had 130 pupils. In 1870 she returned to England full of schemes of Prison Reform, both there and in America. But the Bristol that she loved still kept its hold upon her heart; and in 1871, she applied herself to the establishing of a Day Industrial Feeding School, for the utterly destitute. In 1873 she again left home on a mission to America, chiefly to examine the condition of its prisons. In the spring of 1874 she was at home again, in the thick of her work. But her energy was unresting; and in 1875, being then sixty-eight years old, she started once more for Bombay, to see how her schools were getting on, and what new help they wanted. In March 1876, she sailed for England. It was the year of Lord Sandon's Act; and she took immense interest in its beneficent provisions, especially the enlarged powers of compulsion and the provision for Day Industrial Schools.

In 1877 the working machinery which had been the pride of her life was completed in Bristol. It comprised:—

Boys' Reformatory School at Kingswood.
Girls' Reformatory School at Red Lodge.
Boys' Certified Industrial School, Park Row.
Girls' Certified Industrial School, in the Fort.
Day Industrial Feeding School, in St. James's Back.
The Children's Agency in St. James's Back.
Workman's Hall and Lecture Room.
Boys' Home.

Did ever woman accomplish a nobler work than these eight institutions? So carefully were they planned, that, though their foundress is gone, they remain in full efficiency, and will remain an untold blessing to thousands of lost children, and a noble monument of a noble life. Her end came suddenly, June 14, 1877. On the evening of that day she lay down to rest, and slept; and before the dawn she had passed quietly away."—*School Guardian*.

KEITH JOHNSTON'S LAST GEOGRAPHICAL WORK.

Geography, Physical, Historical, and Descriptive. By Keith Johnston. (pp. 487.) With 20 Maps. London. Edward Stanford. 1880.

It is truly a melancholy task to review the work of a dead man, especially when that work is the outcome of a life spent in laborious study, and suddenly brought to an untimely end. The young author of this book was the son of the well-known Dr. Keith Johnston, of Edinburgh. His was one of those few cases in which a son inherits and carries on the genius and work of a father. Keith Johnston, the younger, was a geographer born and bred. He was destined to this ill-paid, ill-rewarded, but most honourable calling, from the earliest age, just as some children are dedicated to the service of the Church; his education was subordinated to this end; he became a specialist even while at school. His subsequent history is unfortunately brief. He severed his connection with the geographical firm after the death of his father, and undertook work as an explorer and surveyor in Paraguay. He afterwards returned to London, and worked as a writer on geographical subjects, and eventually accepted the charge of the Royal Geographical Society's Expedition to Africa, where he fell a victim to marsh fever. The work before us was completed before he left England, but the proof sheets have not received the author's last corrections.

We may well describe the present work as a monument of Geographical Science. It marks, and will always mark, the stage of geographical knowledge, as well as the condition of the world, in the year 1878. It is not a summary, but an encyclopædia of Geography; and it is not too much to say, that it is a book indispensable to every library, and especially to every school library. The first hundred pages, after an introductory chapter on geographical terms, map-making, and map-drawing, contains a history of Geography. We believe that this is the first book in which such a thing has been attempted. It is illustrated by a series of most beautiful maps, showing the stage of knowledge at each period. Thus, the known world in the first period, at the time of Herodotus, consisted of the Great Persian Empire, which included Egypt, Syria, Asia Minor, Armenia, Persia, Turkestan, Beluchistan, and perhaps Afghanistan, the Mediterranean, the Black Sea (surely not the northern shores of the Caspian, as drawn in the maps), the coasts of Spain and Gaul, and the southern shores of Great Britain. It is instructive to consider that the only people who knew so much as this were the sailors of Tyre, Sidon, Arvad, and Carthage; with one or two travelled Greeks. Perhaps the viziers of the Great Persian Empire had, like the Romans later on, some sort of survey of the realm. Clouds of darkness hung over the rest of the world. Yet, at this very time, there was a great empire, full of learning and light, in China; another, with its literature and art, in Mexico; and another, in Peru. S

thousand years later, we are in the full decadence of the Roman Empire. It has come and gone. The Visigoths and other northern tribes hold Western Europe; the successors of Constantine hold the East. But the Roman arms have extended geographical knowledge so as to embrace Scandinavia in the North, Ceylon in the South, and China in the East. What, however, has become of the Periplus of Hanno, of which we see no mention in any map? Three hundred years later, we are no farther forward, except that the whole of Africa and the East is covered with the Great Arabian Empire. In the year A.D. 1000, we first catch a glimpse of America. It is needless to explain that Mr. Keith Johnston adopts the theory of the discovery of Estotiland (Newfoundland), and Vinehand (New England), by the Scandinavians. For five hundred years more, nothing is gained. Then comes the great burst of discovery, and the black clouds are, with each successive map, shown to be rolled continually further back.

As regards the last map of all, that of 1878, we are inclined to consider it too full of colour and light. It is by no means the case that Africa is entirely explored; there are vast regions still where no European has set his foot; it is not the case that Australia is completely explored, nor Asiatic Russia, nor Central Brazil, nor Central America, nor Eastern Syria, nor Patagonia, nor Thibet, nor Mongolia. In fact, if geographical science were all that is suggested in this drawing, there would be nothing left for the Society in Burlington Gardens but the North and South Poles.

We cannot pursue this work further. Suffice it to say that the "History of Geography" is followed by a treatise on "Physical Geography," and this, again, by a complete geographical account of the whole world, which, although errors may here and there have crept in, will be found the most accurate and complete geography ever published. It must be understood that this is not a work for junior classes, but for the most advanced students. In its earlier pages it is a handbook to History; later on, it is an exponent of Physiography, Astronomy, Climatology, Ethnology, and that science, which has no name, which connects political history with the formation of the earth's surface. It is a book for every schoolmaster first, and for his best scholars next.—*Educational Times.*

THE PHYSICAL BASIS OF MEMORY CONSIDERED WITH REFERENCE TO THE WORK OF THE TEACHER.

By Rev. Evan Daniel.

(*Concluded from page 90.*)

In subjects like Geography and History, the memory is largely dependent on the imagination. Children will realise the distant in time and space with a vividness proportionate to the acuteness and extent of their discriminative sensibility. Hence the known should be used to interpret the unknown, the familiar the remote. Word-

pictures can have no accurate impression unless the words of which they are composed cover distinct ideas in the child's mind.

To sum up these remarks on Retention; the memory will be aided in preserving its impressions in proportion as effort is voluntarily or involuntarily expended by the learner in acquiring knowledge. There is no royal road to remembering. Observe, distinguish, compare, classify, imagine, reason; do this thoroughly, and as far as possible independently; do it again and again, and in the process permanent impressions will be made. The modifications of the brain involved in these processes will be themselves a permanent record of the impressions made upon it; nerve tracks favourable for the diffusion of nervous energy in particular directions will be established; the whole apparatus of the brain will *grow to* the work which it has to discharge, the work of remembering included.

A few words on the recovery of ideas. We all know how one idea helps to recall another associated with it. The physical correlative of this truth is thus explained by Professor Bain in his work, "Mind and Body":—

"The separate impressions must be made together, or flow in quick succession; and they must be held together for a certain length of time, either on one occasion or on repeated occasions. Now to each impression, each sensation or thought, there corresponds physically a group or series of nerve-currents; when two impressions concur, or closely succeed one another, the nerve-currents find some bridge or place of continuity, better or worse according to the abundance of nerve-matter available for the transition. In the cells or corpuscles, where the currents meet and join, there is, in consequence of the meeting, a strengthened connexion or diminished obstruction—a preference-track for that line over other lines where no continuity has been established."

And again—

"As to the precise mode of the plastic growth that unites separate impressions into trains and aggregates in the memory—we know that the corpuscles or crossings are the points that must be operated upon; that a flow of healthy blood must co-operate to the effect; and that the process takes time. It is evidently a species of growth; but the precise molecular change effected in the lines of strengthened communication or diminished obstruction, we can describe only as increasing the conducting tendency in those lines as compared with the collateral openings where no such operation has taken place."

Impressions that succeed each other, or are simultaneous, may be considered as complex wholes, and it is possible that such wholes have their own separate ganglia connected with the ganglia that record the separate impressions. In that case the parts would have a tendency to call up the whole; the whole to call up the parts; and the parts to call up each other. There are at least seven concentric layers of nerve substance in the evolutions of the cerebrum

Dr. Maudsley suggests that these layers are employed in mental operations of increasing difficulty, the simpler acts of memory being assigned to the lower stratum, and the higher efforts of abstraction, reason, &c., being performed by the upper strata. If the strata be connected, it is conceivable how through a system of common junctions the fibres of the brain may connect associated ganglia, and how the associations would be strengthened by increasing the intensity and multiplying the frequency of the nerve-currents set up between the ganglia of the same or different strata.

Associations of contiguity are not without their value in education, but the wholes they make up should be natural wholes and not artificial ones. History and geography may be connected in such a way that the facts of the one subject will help to recall those of the other. Tables, genealogical trees, schemes of classification, and other such devices bring together, in a visible and orderly form, facts that are really related to one another. One column of a table suggests another; one branch of a tree suggests another branch; one class in a scheme of classification another class; one chemical or mathematical formula another, and so on. Whenever it is possible, the associations of logical dependence, or causal sequence, should be exhibited to the eye in verbal or other symbols. The associations of sight and sound will be thereby made to co-operate with them.

Bearing in mind that it is by means of association we recover our ideas, it is obviously of the first importance that, when we stow away our ideas, we should provide clues for their recovery. Now it is easier to remember a number of associated facts than a few isolated ones. The associations of sense should be combined, so that eye and ear and taste and smell and touch and muscular sense may help one another. New knowledge should be associated with old. Unorganizable knowledge should, as a rule, be rejected altogether. The associations of causal sequence, natural contiguity, logical classification, and rational inference should all be utilized when new acquisitions are made. When facts are stowed away in the memory, like odds and ends in an old drawer, it is not surprising that we cannot summon them up at our will. There are no preference tracks established between cell and cell. If, on the other hand, the mind has taken note of the natural and logical connexion of facts when those facts were first learnt, one serves to call up the other. Classes are the pigeon-holes of the mind, where we know what to put our hand on. Natural sequence and logical sequence are threads in the labyrinth of memory. They give us something to follow, and the less entangled they are the easier it is to pass from one end of them to the other.

Our first acquisitions in language are dependent on associations of sound, our next on sight. We have first to connect a combination of sounds with a thing; and then a combination of printed characters with the spoken sounds. Even in this stage, large use may be made of associations. Rhyme and Rhythm are a great help

in remembering spoken words; Resemblances and Analogies in remembering the characters that form printed words. At a later stage, children are greatly helped in learning new words by learning at the same time their roots, congeners, and derivatives: and by connecting their primary with their remoter meanings. In learning new languages, it seems to me desirable to associate new words with things rather than with equivalent words in our own language, unless those words be philologically connected with them. The new words would then be directly connected with the things themselves, and not with their symbols; and sense-impressions would help to recover associated sounds and symbols.

So much for stowing away knowledge with a view to its recovery. We ought not to lose sight of the vast importance of employing knowledge in new combinations, and bringing it under periodical review. Use to-day the truth you acquired yesterday, and you will know it better, and remember it better; you will have deepened old impressions and old associations, and you will have created new associations. You will have strengthened old nervous growths, improved old nervous tracks, and established new tracks that will be of future service. An important part of every day's work, therefore, should consist of constructive exercises, in which acquisitions old and new are utilized in fresh combinations. The new rule in Arithmetic should be followed by examples; the new words in Grammar by exercises containing them; the new proposition in Euclid by a modification of the figure or a deduction; the new truth in science by some practical application of it, and so on. Subjects that do not admit of constructive mental exercises are of little educational value; and knowledge that cannot be used in new combinations is mere lumber. I admit that, in some subjects, there must be a large accumulation of material before it can be utilized—that, for instance, we cannot generalize in History and Geography without a large induction of facts; but, even in these subjects, facts used in one combination may be recombined in others.

In addition to these constructive exercises, there should be periodical reviews of work. These may take the form of rapid repetition of the old mental processes by which knowledge was originally acquired, or of examinations. The senses should be used afresh, points of resemblance and comparison noted again, the basis of old classifications brought into fresh distinctness, the limit of classes once more defined, the sequence and relations of facts once more traced. The drawers should be open, and their contents taken out and dusted. The clues should be taken up and followed from end to end. Forms of sound words, as definitions, formulæ, tables, &c., should be periodically repeated, care being taken that the words continue to cover distinct ideas in the mind. The character of the examinations which pupils undergo will largely influence the cultivation of the memory. If they know that the *ipsissima verba* of some form of knowledge will be required from them, they will acquire the

ipsissima verba; if they know that they will be required to employ their old knowledge in new combinations, they will prepare for that test also. A good examination is a valuable aid to memory as well as a test of it. It brings together knowledge from all sources, concentrates the attention upon the facts brought together, compels the mind to compare, discriminate, judge, classify, generalise, particularize, reason, and all this under circumstances of emotional excitement eminently calculated to fix the results of these processes on the memory.

The question has been raised whether sight or hearing is the better sense for the conveyance of knowledge to the mind, and experiments have been devised for testing their comparative value for this purpose. Some people can take in knowledge best through the ear; some through the eye. Vision has the obvious advantage of allowing the mind to dwell on a statement and to recur to it; the ear, on the other hand, is assisted by the tones, expressions, and gestures of the speaker. The living voice carries us along more easily than the dead book. In the lecture-room the note-book sometimes acts mischievously by coming between the learner and the teacher. The mechanical effort involved in writing is a source of distraction. Both in and out of the lecture-room the note-book is a snare. It is so easy to persuade ourselves that what we have stowed away in our books we have stowed away in our memories, and that what will be accessible at any time will be sure to be at some time or other transferred from the book to the mind. Plato, I believe, used to say, "If you wish to remember anything, do not put it down in writing."

A good power of oblivion is not without its value. Unfortunately we remember errors as well as truths, wrong ideas as well as right. When an error is corrected, it is not straightway banished from the mind. The brain continues for a time to go through the old processes by which the error was fallen into; there is a struggle between the old processes and the new; this struggle will be long or short, according as the source of the error and the reason of the correction are made clear. There is always a reason for a wrong answer. Point it out, and then cease to refer to the error. Withdraw the attention from it, and it will gradually die of inanition.

You will observe that I have no precepts to give for the cultivation of memory that are independent of the general cultivation of the mind. I do not believe in any artificial system of memories. Such systems are the refuge of intellectual idleness and incapacity, and increase the defects they are intended to compensate for. Instead of strengthening the memory they weaken it. They enfeeble the mind, even when they increase its stores of knowledge, if that can be called knowledge which has never been properly assimilated by the mind. It is one thing to take advantage of accidental natural associations for the purpose of remembering, and another to manufacture artificial associations. In many cases the artificial apparatus is more troublesome to acquire than a rational knowledge of the

facts which it is intended to enable the learner to reproduce; in any case, it is an obvious waste of power to learn dodges that are of no value in themselves, when one useful piece of knowledge might be used in acquiring another useful piece.

BOOKS RECEIVED.

The Editor acknowledges with thanks the receipt of the following publications:—

1. The 24th Annual Report of the Syndicate of the University of Madras. Madras, 1880.
2. The Bengal Magazine for April and May 1880.
3. Questions in English History, by Professor Barrett (First Series). Caxton Printing Works, Bombay.

GOVERNMENT CENTRAL BOOK DEPT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th March to 15th April 1880.

A fresh supply of the following Books has arrived from England:—

MEDICAL BOOKS.	Rs.	a.	p.
Bowman's Practical Chemistry	3	4	0
Nicholson's Manual of Zoology	7	0	0
Garrod's Materia Medica and Therapeutics	6	4	0
British Pharmacopœia for 1874	3	0	0
Bentley's Manual of Botany	7	0	0
Taylor's Medical Jurisprudence	7	0	0
Parke's Practical Hygiene	7	0	0
Fenwick's Diagnosis	3	4	0
COPY BOOKS.			
Laurie's Standard Copy Books, Nos. I—XII. each No.	0	1	4
SCHOOL BOOKS.			
Day's History of Sandford and Merton	0	8	0

New Books published by the Department.

KANARESE.			
Departmental Third Book	0	5	6
MARATHI.			
Bhuvarnan, or Physical Geography, translated from the original work of A. Geikie (Marathi Science Primer Series No. 4) by Kashinath Balakrishna Marathé	0	12	0

New Editions published.

GUJARATI.			
Bharatkhandno Itehas; or a Manual of the History of India by Rao Sahib Mahipatram Rupanam, Second Edition	0	8	0

N. V. BAPAT, Curator.

DEPARTMENTAL NOTICES.

Privilege-Leave.

NOTIFICATION.

The subjoined Government Resolution is published for the information of Educational Officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
9th April 1880.

Privilege-Leave. No. 1022.

FINANCIAL DEPARTMENT.

Bombay Castle, 20th March 1880.

Resolution of the Government of India, Department of Finance and Commerce, No. 1134, dated 6th March 1880 :—

"The Governor-General in Council has had under consideration the expediency of making special regulations in respect to the privilege-leave of officers who enjoy periodical departmental vacations. Privilege-leave is granted as an occasional relaxation which officers who enjoy regular departmental vacations do not require. At the same time, if privilege-leave were not allowed at all to such officers, they would be, in some respects, at a disadvantage as compared with other officers.

"2. The Governor-General in Council has, accordingly, directed the following modifications in Chapter VII. of the Civil Leave Code :—

Section 42, line 8, and

Section 44, line 4—

After "Privilege-Leave," in each place, add "or while the office or Court of an officer is closed, and he is at liberty to leave his station, during a regular periodical departmental vacation."

Strike out Rules 1 and 2 under *Section* 43, and the foot-note to Rule 2.

Rule 1 *under Section* 44, line 4—

After "Certificate" add "and, unless his application be for leave combined with vacation under Section 44*a*, that he will not be entitled to any regular periodical departmental vacation."

Section 44*a*.—Once in three years, privilege-leave due may be granted in combination with an authorised periodical departmental vacation, provided that vacation and privilege-leave thus enjoyed together shall in no case exceed three calendar months, and that half allowances only shall be drawn for the period by which the three months or other term of absence less than three months, exceeds the authorised vacation.

"3. The effects of these changes will be, no doubt, to some extent, to deprive officers of the enjoyment of both vacation and

privilege-leave at the same time. But the privileges of an officer who enjoys vacations will, it is believed, be fairly comparable with those of other officers. He will not, like them, have any option as to the season at which he may take a holiday; but to make up for this, he will usually enjoy somewhat longer holidays than other officers."

RESOLUTION.—Copies to be forwarded to all Departments of the Secretariat and all Heads of Offices under the several Civil Departments of the Secretariat for information and guidance.

JOHN NUGENT,
Acting Secretary to Government.

To all DEPARTMENTS of the SECRETARIAT; all HEADS of OFFICES under the CIVIL DEPARTMENTS of the SECRETARIAT; the ACCOUNTANT GENERAL.

Books Sanctioned.

NOTIFICATION.

Mr. S. B. Doctor's Persian Primer, Second Book of Persian, and Persian-English Dictionary, are sanctioned for school use. Copies can be obtained from the Curator.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
22nd April 1880.

The Mary Carpenter Scholarships.

NOTIFICATION.

The five (5) National Indian Association "Mary Carpenter Scholarships" for the year 1880 have been awarded as follows, on the conditions laid down in this Office Notification dated the 25th September 1879, published in the *Bombay Educational Record* for 1879, page 238:—

Two Scholarships of Rs. 6—Standard VI.

(1). Shirnibai F. Mehta, ...Charney Road Girls' School.
(2). Shirnibai B. Vakil, ...Charney Road Girls' School.

One Scholarship of Rs. 5—Standard V.

(1). Thakaribai Vasudew, ...Bhagwandas Purshottamdas Girls' School.

Four Scholarships of Rs. 4—Standard IV.

(1). Yamubai Raghoba, ... Bhagwandas Purshottamdas Girls' School.
(2). Khursedbai A. Olia .....Adarji Cowasji School.

2. The Deputy Educational Inspectors will furnish this office quarterly with the certificates required under the notification, and will then receive and disburse the scholarships, returning receipts for the same to this office.

T. B. KIRKHAM,
Acting Educational Inspector, C. D.

Poona, 27th April 1880.

Service-Stamps not usable by Local Fund employés.

NOTIFICATION.

The subjoined Government Resolution No. 1410, dated 23rd April 1880, Financial Department, is published for the information of Educational Officers.

By order of the Director of Public Instruction.

JNO. BOCARRO,
Head Assistant.

Poona, Office of the Director of Public Instruction,
28th April 1880.

Service-Stamps. No. 1410.

FINANCIAL DEPARTMENT.

Bombay Castle, 23rd April 1880.

Transfer from the Educational Department of the Secretariat, No. 340, dated 16th March 1880, of the following paper:—

Letter from the Director of Public Instruction, No. 5518, dated 9th March 1880—Requesting instructions with regard to the rule relative to service-stamps published at page 964 of the *Government Gazette* of 11th December last; stating that Inspecting Officers paid from Provincial Funds do not appear to be touched by this rule, but that Masters and others paid from the Cess Budgets are apparently deprived of the privilege of using service-stamps; recommending that all Inspecting Officers paid from Provincial Funds should continue to use service-stamps; and observing, with regard to Masters and others paid from Local Funds, that the chief question is the money consideration, and that it will be necessary to increase the grants in the Local Fund Budgets if Government are of opinion that the privilege cannot be extended to them.

Memorandum from the Accountant-General, No. T.A.A.-147, dated 3rd April 1880—Concurring in the opinion expressed by the Director of Public Instruction that Inspecting Officers paid from Provincial Funds are not touched by the rule in question; and stating that Masters of schools and other officers paid from Local Funds are not allowed the use of service-postage-stamps for correspondence, and that any expenditure that they may incur on account of postage must be defrayed from the Local Funds.

RESOLUTION.—Correspondence under official labels must, in accordance with the rules, be confined to Government officers, acting as such, whether with respect to Local Fund matters or not. Inspecting Officers who are paid out of Provincial Revenues are entitled under paragraph 3 of the rules to use service-labels in corresponding on matters connected with Local Funds; whilst to officers who are maintained entirely out of Local Funds this privilege does not extend, and provision for the cost of postage must be made in the budget on the above consideration.

JOHN NUGENT,
Acting Secretary to Government.

To the DIRECTOR of PUBLIC INSTRUCTION, the ACCOUNTANT-GENERAL, the COMMISSIONER in SIND, the COMMISSIONER, N. D., the COMMISSIONER, C. D., the COMMISSIONER, S. D., All COLLECTORS, including the COLLECTORS and SUPERINTENDENTS in SIND, the EDUCATIONAL DEPARTMENT of the SECRETARIAT (with the transfer).

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT, FROM THE 16TH MARCH to 15TH APRIL 1880.

16*th March* 1880.—Fifteen days' privilege leave is granted to Mr. Fatehchand, Acting Persian Teacher, Shikarpur High School.

18*th March* 1880.—One year's leave, without pay, is granted to Mr. Harivallabh P. Desai, Ninth Assistant Master, High School, Rajkot.

18*th March* 1880.—Mr. Moroji M. Pandya, Tenth Assistant Master, Rajkot High School, is appointed substantive *pro tem.* Ninth Assistant Master in the same School *vice* Mr. Desai, on leave.

18*th March* 1880.—Mr. Nagji N. Gunotra, is appointed substantive *pro tem.* Tenth Assistant Master in the Rajkot High School, *vice* Mr Pandya, promoted.

19*th March* 1880.—Mr. Keshavlal G. Shastri is appointed Sixth Assistant Master, Navanagar High School.

19*th March* 1880.—Mr. Sakalchand Vithaldas, Taluka Master, Viramgaum Vernacular School, is appointed Taluka Master at Dholka.

19*th March* 1880.—Mr. Maganbhai Haribhai, Taluka Master, Vernacular School at Dholka, is appointed Taluka Master at Viramgaum.

19*th March* 1880.—Mr. Jamiatram G. Shastri is appointed Tenth Assistant Master in the Broach High School.

19*th March* 1880.—Six months' leave, without pay, is granted to Mr. Nathji Ramji, Tenth Assistant Master, Broach High School.

23*rd March* 1880.—The unexpired portion (five days) of the 1½ month's leave, without pay, granted to Mr. R. H. Gangan, Sixth Assistant Master, Ratnagiri High School, is cancelled.

23rd *March* 1880.—The unexpired portion (one day) of the twenty-four days' privilege leave, granted to Mr. K. S. Rege, Fourth Assistant Master, Ratnagiri High School, is cancelled.

23rd *March* 1880.—Two months' privilege leave is granted to Mr. Kanyalal G. Dhru, Sub-Deputy Educational Inspector, Gohelwad Prant, Kattyawar.

24th *March* 1880.—Eighteen days' sick leave is granted to Mr. Anant Vinayek Sohoni, Head Master, 1st Grade Anglo-Vernacular School, Pandharpur.

24th *March* 1880.—One month's leave, without pay, is granted to Mr. Ramchandra Balkrishna Sohoni, First Assistant Master, First Grade Anglo-Vernacular School, Pandharpur.

24th *March* 1880.—Mr. Govind Appaji Sahasrabudhe, Sanskrit Teacher, Pandharpur, First Grade Anglo-Vernacular School, is appointed Acting First Assistant Master in the same School, *vice* Mr. Sohoni, on leave.

24th *March* 1880.—Mr. Vishnu Sakharam Joshi, Second Assistant Master, Pandharpur, First Grade Anglo-Vernacular School, is appointed Acting Sanskrit Teacher in the same School, *vice* Mr. Sahasrabudhe, promoted.

27th *March* 1880.—Three months' extension of leave, without pay, is granted to Mr. Krishnaji Narayen Patankar, Assistant Master, Rajaram High School, Kolhapur.

31st *March* 1880.—Two months' privilege leave is granted to Mr. Krishnalal G. Mehta, Sub-Deputy Educational Inspector, Jhalawar Prant.

2nd *April* 1880.—The unexpired portion (29th March to 8th April both days included) of the two months' leave granted to Mr. S. R. Apte, 4th Assistant Master, Dharwar High School, is cancelled.

5th *April* 1880.—A month's extension of sick leave is granted to Mr. Rege, Agricultural Teacher, Nasik High School.

10th *April* 1880.—The unexpired portion (four days) out of the three weeks' leave, without pay, granted to Mr. K. M. Raghavendrarao, First Assistant Master, Karwar High School, is cancelled.

12th *April* 1880.—Twenty days' privilege leave is granted to Mr. Fatechand Girdhardass, Acting Third Assistant Master, High School, Shikarpur.

12th *April* 1880.—The unexpired portion (two days) out of the four months' sick leave granted to Mr. R. C. Bapat, 7th Assistant Master, Poona High School, is cancelled.

12th *April* 1880.—Six months' sick leave is granted to Mr. Kashinath Damodhar, Assistant Master, Engineering School, Hydrabad.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction, 19th April 1880.

THE

Bombay Educational Record.

No. 6.] JUNE 1, 1880 [Vol. XVI.

THE MONTH.

PROFESSORS WORDSWORTH and KIRKHAM have taken furlough to Europe for twelve and fifteen months, respectively. They will both be greatly missed in Bombay. Professor Kirkham's departure is also a loss to this magazine, of which he has for many years been the genial and accomplished editor.

THE University of Edinburgh have conferred the degree of Doctor of Science on Professor Duncan, of the Presidency College, Madras, in recognition of his literary work in conjunction with Mr. Herbert Spencer, and of his recently published treatise on the Psychology of the Upanishads.

PROFESSOR HUXLEY will deliver the inaugural address at the Science College at Birmingham on October 1.

AT the last annual meeting of the Madras Senate one of the Fellows remarked that he saw from the Syndicate's report that the University had a Library; but he would ask—Where was it? for whose use? and how was access to it to be obtained? These questions do not appear to have elicited any reply.

THE report of Dr. Allison, Superintendent of Education for Nova Scotia, for the year ending October 31, 1879, furnishes interesting information concerning the state of public education in that province. During the school-terms there were registered in the schools 99,094 different pupils, or 1 in 3·9 of the entire population of the province according to the census of 1876. The total number of teachers employed for the winter-term was 1,960, and for the summer-term

2,011. The grants to teachers of the common schools paid from the Provincial treasury amounted to 151,655·36 dollars. Other charges, such as inspection, examination, education-office, high schools, &c., brought the expenditure for public schools to 180,199·80 dollars. Add to this 15,200 dollars for colleges, 5,100 dollars for special academies, and 5,075 dollars for the normal school, and we have a total educational expenditure for the year of 205,274·80 dollars, stated to be a decrease of 2,540·11 dollars as compared with the preceding year. The average cost to Government of each pupil registered in the public schools was 1·53 dollar.

From a study of the action of planets on comets Professor George Forbes, of Glasgow, has reason to believe that a new planet exists at present in R.A. 11h. 40m., N. P. D. 87 deg., or within perhaps 6 deg. or so of that spot, close to the ecliptic; that the opposition is just past; and that its distance from the sun is 100 times that of the earth.

The books prescribed by the Madras University for the matriculation examination in Natural Science have hitherto been Balfour Stewart's Physics Primer (to the end of *Heat*) and Geikie's Physical Geography Primer (the whole). As, however, the latter book presupposes a knowledge of Chemistry—a science not studied by the examinees—the Senate have substituted Roscoe's Chemistry Primer for the Physical Geography. They have also laid it down that questions of an Arithmetical character should, as far as possible, be excluded from the Chemistry and Physics papers. Changes in the Science sections of the higher examinations have also been considered by the Senate; but no final decision has yet, we believe, been arrived at.

The Indian Institute at Oxford, says the *Daily Telegraph*, will become a centre of union and intercourse for all engaged in Indian studies, and will bring together not only the candidates for the Civil Service—thereby restoring something of the lost Haileybury *esprit de corps*—but also those Indian undergraduates whose number is gradually and surely increasing, and upon whom so much in the future will depend. In addition to all this the project, when carried into effect, cannot fail to give immediate and wide-spread encouragement to Oriental research by Englishmen, and European study by

Natives of India. It will, therefore, be seen that a double aim runs through the programme of the future Institute, each of sufficient merit to claim for itself alone the best assistance of all friends of national progress, and each, too, of sufficient scope and importance to command public sympathy. The scope, indeed, is so large that under its present phase the Indian Institute project does not and cannot do justice to it, for the scheme is at present confined to the Oxford development only. But the time is fast approaching when there must be an "Indian Institute" at both the sister Universities, and is not probably far off when London and Dublin also will follow the examples set them on the Isis and the Cam. The project is not one of Oxford nor yet of University interest alone, but is of Imperial importance, having in view nothing less than the welfare of our Eastern Empire by fitting its young administrators more completely for the task before them, and by winning over to European study annually increasing numbers of Native students.

The following gentlemen have passed their Final Examination (Law of Real and Personal Property, Common Law and Equity,) held at the Inns of Court in March last :—Mr. Sayad Abdul-Rahman and Mr. Piri Lal Rai, of the Inner Temple; Mr. Muhammad Husain Hakim and Mr. Krishna Nath Mitra, of Lincoln's Inn.

Mr. W. C. Niblett (Benares), of the Inner temple, has passed the Examination in Roman Law. The following gentlemen were called to the Bar on April 21st :—Mr. Abul Fazl Muhammad Abdul-Rahman (Calcutta), Mr. Piri Lal Rai (Barisal), Downing College, Cambridge, both of the Inner Temple; Mr. Abul Hasan Khan (Patna), Mr. Abdul Halim (Mirzapore), Mr. Muhammad Sirajuddin (Mirzapore), all of the middle Temple; and Mr. Muhammad Husain Hakim (Bombay), of Lincoln's Inn.

The following four Muhammadans have left Calcutta for England, namely :—Sayad Muhammed Israil, Deputy Magistrate of Rangpore; Sayad Abdul Rab, son of Sayad Moazzam Hosain, Small Cause Court Judge at Kushtea; Mulvi Tahiruddin, Zemindar of Jelpigori, and Mulvi Tamizuddin, Zemindar of Jelpigori. The first three will study for the Bar and the last for Medicine. The total number of Muhammadans who have gone to England to study, during the last ten years, is thirty-four.

The Director of Public Instruction in Madras lately advised Government to make vaccination compulsory in all Government and aided schools in the Presidency-town and in all English-teaching Government and aided schools in the mofussil, leaving it to local Fund Boards and Municipalities to decide whether vaccination should be compulsory in the vernacular schools controlled or subsidised by them. The Director's suggestion was endorsed by the Sanitary Commissioner, Mr. Cornish. But the Government of Madras replied that they could not make vaccination compulsory in all the schools in question until it became legally compulsory for the population at large; but that it was their wish that vaccination should be made a condition precedent to the tenure of a Government scholarship, stipend or free-studentship, and "that it should be required of all students in Government schools."

A Club entitled "The Northbrook Indian Club" has just been opened in London under the auspices of the Earl of Northbrook and others for the convenience of Indian gentlemen reading in England and for the purpose of offering facility for social intercourse between them and English gentlemen interested in Indian affairs. The Club consists of a well-furnished reading-room, and a smoking-room with lavatory. It is supplied with all the leading English and Indian newspapers, reviews, &c., as well as with books from Mudie's Library. Tea, coffee, &c., are also supplied on the premises. The subscription is one guinea per annum for London-residents and twelve shillings per annum for country-members.

We hope to notice Professor Barrett's *Questions in English History* in our next number.

THE GRAND CAÑON OF THE GREAT COLORADO.*

The plateau of the Colorado river—that is, the district through which the river runs for 5° of latitude—has been raised to an average elevation of 7,000 feet. It extends in a N.N.W. direction, from a point south-east of the San Francisco mountain, across the

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* Compiled from "*New Tracks in North America*," (by Dr. W. A. Bell, Fellow of the Royal Geographical and Ethnological Societies. 2 vols., Chapman and Hall, 1869). Another and more recent, though less graphic, description of the Grand Cañon is to be found in pp. 320—328 of the Earl of Dunraven's *The Great Divide*. (Chatto and Windus, 1876). Both these books deserve a place in every High School Library.—Ed. B. E. R.

Colorado into Utah, and includes a portion of the country traversed by Grand and Green rivers, before they unite to form the Rio Colorado, as well as a more considerable part of that crossed by the Colorado Chiquito and the Rio San Juan in the latter part of their course. Over this plateau the Rio Colorado formerly flowed for at least 350 miles of its course; but in the lapse of ages its rapid current has cut its bed down through all the sedimentary strata, and several hundred feet into the granite base on which they rest. For 300 miles the cut edges of the table-lands rise abruptly, often perpendicularly from the water's edge, forming walls from 3,000 feet to over a mile in height.* This is the Great Cañon of the Colorado—the most magnificent gorge, as well as the grandest geological section, of which we have any knowledge.

Cañons are usually formed by the action of water only, unaided by volcanic force, which is often erroneously said to be the primary cause of the so-called fissures and cracks through which the waters flow.

The physical conditions are,—1stly—A dry climate, in which even periodical rains do not fall to any considerable amount; 2ndly—The passage of never-failing streams from their distant and exterior sources through this dry country; 3rdly—It is requisite that the surface strata should be of such a nature as easily to yield to the action of the current; but when once a groove has been furrowed and the water channel definitely fixed, it does not appear to matter of what the underlying rocks are composed, since the unceasing attrition of ages has, in some instances, succeeded in cutting through 1,000 feet of the hardest granite; 4thly—It is requisite that the fall of the land should be sufficiently great to ensure a rapid current.

It is impossible for a country in which cañons abound to be anything but sterile and utterly worthless, for the deep cuttings everywhere drain it to the utmost; and the waters buried deep in the bowels of the earth, lie far beyond the reach of animal or vegetable life on the surface.

But to what causes are due the mesa or table-land features? Like the great cañons of the Colorado, the broad valleys, bounded by high and perpendicular walls, belong to a vast system of erosion, and are wholly due to the action of water. Probably nowhere in the world has the action of this agent produced results so surprising, both as regards their magnitude and their peculiar character. It is not at all strange that a cause which has given, to what was once an immense plain, underlaid by thousands of feet of sedimentary rocks, conformable throughout, a topographical character more complicated than that of any mountain-chain, and which has made much of it absolutely impassable to man or any animal

* Since Dr. Bell's account was written, an exploring expedition under Major Powell, which was undertaken for the Smithsonian Institute in 1873, has ascertained that the cliffs of the cañon attain to a maximum height of 6,500 feet.

but the winged orders of creation, should be regarded as something out of the common course of nature. Hence the first and most plausible explanation of the striking surface-features of this region is to refer them to that embodiment of resistless power—the sword which cuts so many geological knots—volcanic force. The great cañon of the Colorado would thus be considered a vast fissure or rent in the earth's crust, and the abrupt termination of the steppes of the table-lands as marking lines of displacement. This theory, though so plausible, and so entirely adequate to explain all the striking phenomena, lacks a single requisite to acceptance, and that is *truth*.

Aside from the slight local disturbance of the sedimentary rocks, about the San Francisco mountain—from the spurs of the Rocky Mountains near Fort Defiance on the east to those of the Cerbat and Aztec mountains on the west—the strata of the table-lands are as entirely unbroken as when deposited. Having this fact constantly in mind, and examining with all possible care the structure of the great cañons which were entered, Dr. Bell everywhere found evidence of the exclusive action of water in their formation.* The opposite sides of the deepest chasm showed perfect correspondence of stratification, conforming to the general dip, and nowhere was there displacement; the bottom rock, so often dry and bare, was perhaps deeply eroded, but it was continuous from side to side, a portion of the yet undivided series lying below. The mesa walls should be included in the same category with those of the cañons—sometimes, indeed, they are but cañons, miles in breadth.

In August 1867 a gold-prospector, named James White, floated through the Colorado cañon on a raft of drift-wood. He is the only human being who is known to have passed through this stupendous chasm alive; and his perilous adventure solved a geographical problem which had long attracted the attention of the learned in Europe and America, who before his voyage could only theorise as to the nature of the cañon through which the Colorado cleaves its course.

In the spring of this year James White had joined a prospecting party to the San Juan Valley, west of the Rocky Mountains. Besides himself the party consisted of Captain Baker, Henry Strole, and another man, who afterwards left them. Their prospecting for gold began in the bed of the Animas, and though they were partially successful, the result did not by any means reach their expectations; so they followed down the stream into the main valley of the San Juan. There was gold there, but not in the quantity they expected; so they gradually moved west, along the beautiful valley, for 200 miles, when they found that the San Juan entered a deep and gloomy cañon. To avoid this they forded the river to the right bank and struck across a rough timbered country, directing their course towards the Great Colorado.

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* The Niagara River is now creating a small cañon between Lakes Erie and Ontario.

Having travelled through this rough country for a distance estimated at 50 miles, they reached Grand River, being still above the junction of Green River, the united waters of which two streams, as already stated, form the Colorado proper. At the point where they struck the river it was hemmed in by cliffs of perpendicular rock, down which they could gaze at the coveted water, dashing and foaming 2,000 feet below. Men and animals were suffering from thirst, so they pushed up the stream along the rocky, uneven cañon wall, hoping to find a place where they could descend to the river. After a day spent in clambering over and around the huge rocks that blocked their way, they came upon a side cañon, which they succeeded in descending with their animals, and where they obtained the water of which all stood so much in need.

On the night of the 23rd of August they encamped at the bottom of the cañon, where they found plenty of fuel and grass for their animals. As they sat around the camp fire they lamented their failure in the San Juan country, and Strole began to regret that they had undertaken the expedition. But Baker, who was a brave, sanguine fellow, spoke of *placers* up the river about which he had heard, and promised his companions that all their hopes should be realised, and that they should return to their homes to enjoy the gains and laugh at the trials of their trip. So glowingly did he picture the future, that his companions even speculated as to how they should spend their princely fortunes when they returned to the States. Baker sang songs of home and hope, and the others lent their voices to the chorus till, far into the night, they sank to sleep unguarded, to dream of coming opulence and to rise refreshed for the morrow's journey.

Early next morning they breakfasted and began the ascent of the side cañon up the opposite bank to that by which they had entered it. Baker was in advance with his rifle slung at his back, gaily springing up the rocks towards the table-land above. Behind him came White; Strole, with the mules, brought up the rear. Nothing disturbed the stillness of the beautiful summer morning but the tramping of the mules and the short heavy breathing of the climbers. They had ascended but half the distance to the top, when, stopping for a moment to rest, suddenly the war-whoop of a band of savages rang out, sounding as if every rock had a demon's voice. Simultaneously with the first whoop a shower of arrows and bullets was poured into the little party. With the first fire Baker fell against a rock, but, rallying for a moment, he unslung his carbine and fired at the Indians, who now began to show themselves in large numbers, and then, with the blood flowing from his mouth, he fell to the ground. White, firing at the Indians as he advanced, and followed by Strole, hurried to the aid of his wounded leader. Baker, with an effort, turned to his comrades and said with his last breath, "Back, boys, back! save yourselves: I am dying." To the credit of White and Strole be it said, they faced the savages and

fought till the last tremor of the powerful frame told them that Baker was dead.

Then slowly they began to retreat, followed by the exultant Indians, who, stopping to strip and mutilate the dead body in their path, gave the white men a chance to secure their animals and retrace their steps into the side cañon beyond the immediate reach of the Indians' arrows. Here they held a hurried consultation. To the east, for 300 miles, stretched an uninhabited country, over which, if they attempted to escape in that direction, the Indians, like bloodhounds, would follow their track. North, south, and west was the Colorado with its tributaries, all flowing through deep chasms across which it would be impossible for men or animals to travel. Their deliberations were necessarily short, and resulted in a decision to abandon the animals—first securing their arms, a small stock of provision, and the ropes or lariats of the mules. Through the descending side cañon they travelled due west for four hours, and emerged at last on a low strip of bottom-land on Grand River, above which for 2,000 feet on either bank the cold grey walls rose to block their path, leaving to them but one avenue for escape—the dashing current of the river.

They found considerable quantities of drift wood along the banks, from which they collected enough to enable them to construct a raft capable of floating themselves with their arms and provisions. This raft consisted of three spars of cotton-wood, about ten feet in length and eight inches in diameter, lashed firmly together with their lariats. Procuring two stout poles with which to guide the raft, and fastening the bag of provisions to the logs, they waited for midnight to come with the waning moon, so as to drift off unnoticed by the Indians. They did not consider that even the sun looked down into that chasm for but one short hour in the twenty-four, and then left it to the angry waters and blackening shadows; and that the faint moonlight reaching the bottom of the cañon would hardly serve to reveal the horror of their situation. Midnight came, as they thought, by the measurement of the dark, dreary hours, when, seizing the poles, they untied the rope that held the raft, and, tossed about by the current, they rushed through the yawning cañon on their adventurous voyage to an unknown landing. Through the long night they clung to the raft as it dashed against half-concealed rocks or whirled about like a plaything in some eddy, whose white foam was perceptible even in the blackness.

They longed for the daylight, which came at last, and with it a smoother current and less rugged banks, though the cañon walls appeared to have increased in height. Early in the morning (August 25th) they found a spot where they could make a landing and went ashore. After eating a little of their water-soaked provisions, they returned and strengthened their raft by the addition of some light pieces of cedar, which had been lodged in clefts of the rocks by

recent floods. White estimates the width of the river where they landed at 200 yards and the current at three miles per hour. After a short stay at this place they again embarked, and during the rest of the day they had no difficulty in avoiding the rocks and whirlpools that met them at every bend of the river.

In the afternoon, and after floating over a distance estimated at thirty miles from the point of starting, they reached the mouth of Green River, or rather where the Green and the Grand unite to form the Colorado proper. Here the cañons of both streams form one of but little greater width, but far surpassing either in the height and grandeur of its walls. At the junction the walls were estimated at 4,000 feet in height. Detached pinnacles appeared to rise, one above the other, for 1,000 feet higher, from amidst huge masses of rock confusedly piled, like grand monuments to commemorate this "meeting of the waters." The fugitives felt the sublimity of the scene, and in contemplating its stupendous and unearthly grandeur, they forgot for the time their own sorrows as they floated

Through the grey cold abyss,
Down, down!
Where the air is no prism,
And the moon and stars are not,
And the cavern-crags wear not
The radiance of heaven,
Nor the gloom to earth given.

The night of the day upon which they entered the great cañon, and indeed all, or nearly all, the subsequent nights of the voyage, the raft was fastened to a loose rock, or hauled up on some strip of bottom-land, where they rested till daylight next morning.

As they floated down the cañon the grey sandstone walls increased in height; the lower portion was smooth from the action of the floods, but the perpendicular wall-rock above became more and more ragged, until the far-off sky appeared to rest upon a fringe of pinnacles on either side. Here and there a stunted cedar clung to the cliff 2,000 feet overhead, or a prickly cactus tried to suck sustenance from the bare rock. No living thing was in sight beyond the raft, for even the wing of bird, which could pass the chasms in the upper world, never fanned the dark air in those subterranean depths. Naught was there to gaze on but their own pale faces and the cold grey walls that hemmed them in and mocked at their escape. Here and there the raft shot past side cañons, black and forbidding, like cells set in the walls of a mighty prison.

Baker had informed his comrades as to the geography of the country, and while floating down they remembered that Calville was at the mouth of the cañon, which could not be far off; "such wonderful walls could not last." Then hope came with the promise of escape. A few days would take them to Calville; their provisions could be made to last for five. So these two men, thus shut in from the world, buried as it were in the very bowels of the earth, in the midst

of a great unknown desert, began to console themselves, and even to jest at their situation.

Forty miles below their entrance into the cañon of the Colorado, they reached the mouth of the San Juan River. They attempted to enter it, but its swift current cast them back. The perpendicular walls, high as those of the Colorado, with the water flowing from bank to bank, forbade their abandoning their raft to attempt escape in that direction. So they floated away. At every bend of the river it seemed as if they were descending deeper into the earth, and that the walls were coming closer together above them, shutting out the narrow belt of sky, thickening the black shadows, and redoubling the echoes that went up from the foaming waters.

Four days had elapsed since they embarked on the frail raft; and it was now August 28th. So far they had been constantly wet, but the water was comparatively warm and the current more regular than they could have expected. Strole had taken upon himself to steer the raft; and against the advice of White, he often set one end of the pole against the bank or some opposing rock, and then leaned with the other end against his shoulder, to push the raft away. As yet they had seen no natural bridge spanning the chasm above them, nor had any fall or cataract prevented their safe advance. About three o'clock on the afternoon of the 28th they heard the deep roar as of a waterfall in front of them. They felt the raft agitated, then whirled along with frightful rapidity towards a wall that seemed to bar all further progress. As they approached the cliff, the river made a sharp bend, around which the raft swept, disclosing to them, in a long vista, the water lashed into foam, as it poured through a narrow precipitous gorge, caused by huge masses of rock detached from the main wall. There was no time to think; the logs strained as if they would break their fastenings; the waves dashed around the men, and the raft was buried in the seething waters. White clung to the logs with the grip of death. His comrade stood up for an instant with the pole in his hands, as if to guide the raft from the rocks against which it was plunging; but he had scarcely straitened, before the raft seemed to leap down a chasm, and amid the deafening roar of waters, White heard a shriek that thrilled him to the heart, and looking round he saw, through the mist and spray, the form of his comrade tossed for an instant on the water, then sinking out of sight in the whirlpool.

White still clung to the logs, and it was only when the raft seemed to be floating smoothly, and the sound of the rapids was left behind, that he dared to look up; then it was to find himself alone, the provisions lost, and the lengthening shadows warning him of the approaching night. A feeling of despair seized him, and clasping his hands he prayed for the death he was fleeing from. He was made cognizant of more immediate danger by the shaking of the raft—the logs were separating. Then he worked and succeeded in effecting a landing near some flat rocks, where he made his raft fast for the

night. After this he sat down to spend the long gloomy hours in contemplating the horror of his situation and his small chance of completing the adventurous voyage he had undertaken. He blamed himself for not having fought the Indians till he had fallen with Baker. Then he thought he might have escaped through the San Juan Valley and the mountains beyond to the settlements. Had he done so, he would have returned to his home and rested satisfied with his experience as a prospector. And when he thought of "home," it called up the strongest inducements for life, and he resolved, to use his own words, "to die hard, and like a man."

Gradually the dawn, long perceptible in the upper world, began to creep down the black cañon, and gave him light to strengthen his raft and launch it again into the treacherous river. As he floated down he remembered the sad fate of Strole, and took precaution to lash himself firmly to the raft, so as to preclude the possibility of his being separated from it. This forethought subsequently saved his life. His course through the cañon was now over a succession of rapids, blocked up by masses of rock, over which his frail raft thumped and whirled, at times wholly submerged in the foaming water. At one of these rapids, in the distance of about a hundred yards, he thinks the river must have fallen between thirty and forty feet. In going over this place the logs composing the raft became separated at the upper end, and, spreading out like a fan. White was thrown into the water. He struggled to the side by means of his rope, and with a desperate strength held the logs together till they floated into calmer water, where he succeeded in refastening them.

White's trials were not yet at an end, and in relating the following incident, he showed the only sign of emotion exhibited during his long series of answers.

About four miles below where the raft separated, he reached the mouth of a large stream, which he afterwards learned was the Colorado Chiquito. The cañon through which it enters is very much like that of the San Juan, and though it does not discharge so large a body of water, the current is much more rapid, and sweeps across the Great Colorado, causing in a black chasm on the opposite bank a large and dangerous whirlpool. White saw this and tried to avoid it, but he was too weak for the task. His raft, borne by the current of the Colorado proper, rushed down with such force that, aided by his paddle, he hoped to pass the waters that appeared to sweep at right angles across his course from the Colorado Chiquito. When he reached the mouth of the latter stream, the raft suddenly stopped, and swinging round for an instant, as if balanced on a point, it yielded to the current of the Colorado Chiquito and was swept into the whirlpool.

White now felt that all further exertion was useless, and dropping his paddle, he fell upon the raft. He heard the gurgling waters around him; every moment he felt that he must be plunged

into the boiling vortex. He waited with his eyes closed for some minutes, when, feeling a strange swinging sensation, he opened them, and found that he was circling round the whirlpool, sometimes close to the vortex, and at others thrown back by some invisible cause to the outer edge, only to whirl again towards the centre. Thus borne by the circling waters, he looked up, up, up, through the mighty chasm that seemed bending over him as if about to fall and crush him. He saw in the blue belt of sky, which hung above him like an ethereal river, the red-tinged clouds floating, and knew that the sun was setting. Still around the whirlpool the raft swung, like a circular pendulum measuring the long moments before expected death. He felt a dizzy sensation, and thinks he must have fainted; he knows he was unconscious for a time; for when again he looked up between the walls, whose rugged summits towered 5,000 feet above him, the red clouds had changed to black and the heavy shadows of night had crept down the cañon.

Then for the first time he remembered that there was a strength greater than that of man, a Power that holds the ocean in the hollow of His hand. "I fell down on my knees," he said, "and as the raft swept round in the current, I asked God to aid me. I spoke as if from my very soul, and said, 'Oh God! if there is a way out of this fearful place, show it to me; take me to it.'" Here White's voice became husky, and his somewhat heavy features quivered as he continued—"I was still looking up with my hands clasped when I felt a different movement in the raft, and turning to look at the whirlpool, I saw that it was some distance behind, and that I was floating down the smoothest current I had yet seen in the cañon."

This statement is the only information White volunteered; all the rest was obtained by close questioning.

Below the mouth of the Colorado Chiquito the current was very slow, and White felt, what he subsequently found to be the case, that the rapids were past, though he was not equally fortunate in guessing his proximity to Calville. The course of the river below this he describes as exceedingly "crooked, with short, sharp turns," the view on every side being shut in by flat precipitous walls of "white sand-rock." These walls presented white perpendicular surfaces to the high water-level, which had a distinct mark of about forty feet above the August stage.

The current bore White from the Colorado Chiquito slowly down the main river. His clothing was torn to shreds, and the few rags which clung to his frame were constantly saturated with water. Each noon the sun looked into the cañon, only to pour his almost vertical rays on the famishing man, and to burn and blister those parts of his body that the scanty rags did not cover. One, two, three, four days dragged slowly past without his tasting food, and still the current bore him through the towering walls of the cañon. Hunger maddened him. He felt it burning into his vitals. His

thoughts were of food! food! food! and his sleeping moments were filled with tantalising dreams. Once he raised his arm to open some vein and draw nutriment from his own blood, but its shrivelled, blistered length frightened him. For hours as he floated down he would sit looking into the water, yet lacking courage to make the plunge that would rid him of all earthly pain. On the morning of the fifth day since he had tasted food, he saw a flat bank with some mesquit bushes upon it, and by using all his strength he succeeded in reaching it with his raft. He devoured the few green pods and the leaves of the bushes, but they only increased his desire for more. The journey was resumed, and he remembers that during the last two days of unbroken cañon wall, the rocks became very black, with shining surfaces, probably where the igneous took the place of the cretaceous rocks.

Six days without food, save the few green leaves, and eleven days since starting, and still the uneven current bore on the raft with its wretched occupant. He saw occasional breaks in the wall, with here and there a bush. Too weak to move his raft, he floated past and felt no pain, for the overwrought nerves refused to convey sensation.

On the afternoon of this, the sixth day, he was roused by hearing the sound of human voices, and, raising himself on one arm, he looked towards the shore, and saw men beckoning to him. A momentary strength came to his arms, and grasping the paddle he urged the raft to the bank. On reaching it he found himself surrounded by a band of Yampais Indians, who for many years have lived on a low strip of alluvial land along the bottom of the cañon, the trail to which from the upper world is known only to themselves. One of the Indians made fast the raft, while another seized White roughly and dragged him up the bank. He could not remonstrate; his tongue refused to give a sound: so he pointed to his mouth and made signs for food. The fiend that pulled him up the bank tore from his blistered shoulders the shreds that once had been a shirt, and was proceeding to take off the torn trousers, when, to the credit of the savage be it said, one of the Indians interfered and pushed back his companions. He gave White some meat and roasted mesquit beans to eat, which the famished man devoured, and after a little rest he made signs that he wanted to go to the nearest dwellings of the white men. The Indians told him he could reach them in "two suns" by his raft, so he stayed with them all night, and with a revolver that remained fastened to the logs, he purchased some mesquit beans and the half of a dog.

Early next morning he tottered to the bank, and again pushed into the current. The first day out he gave way to the yearnings for food, and despite his resolution to the contrary, he ate up his entire stock of provisions, which did not by any means satisfy his craving. Three long days of hope and dread passed slowly by, and still no signs of friends. Reason tottered; and White stretched

himself on the raft; all his energies were exhausted; life and death were to him alike indifferent.

Late in the evening of the third day after leaving the Indians, and fourteen days from the time of starting on this perilous voyage, White again heard voices, accompanied by the rapid dash of oars. He understood the words, but could make no reply. He felt a strong arm thrown round him, and he was lifted into a boat to see manly bearded faces looking on him with pity. The great objective point, Calville, was reached at last; the battle for a life was won; but with the price of unparalleled suffering. The people of this Mormon settlement had warm, generous hearts, and, like good Samaritans, lavishly bestowed every care on the unfortunate man, so miraculously thrown among them from the bowels of the unexplored cañon. His constitution, naturally strong, soon recovered its terrible shock, and he told his new-found friends his wonderful story, the first recital of which led them to doubt his sanity.

C. McAllister, who in 1869 was an assistant in the store of Mr. Todd at Fort Mojave, was one of the three men who went in the boat to White's assistance. He said that he never saw so wretched-looking a man as White when he first met him; his feet, legs, and body were literally flayed from exposure to drenching from water and the scorching rays of the sun. His reason was almost gone, his form stooped, and his eyes were so hollow and dreary that he looked like an old and imbecile man.* Mr. W. H. Hardy, of Hardville, near Fort Mojave, brought White thither, that he might see and talk with him. Mr. Hardy corroborates the statements of McAllister, and from his knowledge of the country above Calville, says that it would be impossible for White to have come for any distance by the river without travelling through the whole length of the Great Cañon of the Colorado. Mr. Ballard, a mail-contractor, in whose employment White was then earning money to take him home, says he believes him to be a sober, truthful man; but apart from White's statement, Ballard is confident he must have traversed, and in the manner stated, that hitherto unexplored chasm which completes the missing link between the upper and lower course of the Great Colorado.

The subjoined conclusions may be summed up as some of the new additions to our previous geographical knowledge of the hydrography of the Great Colorado of the West, derived from this remarkable voyage:—

1. The actual location of the mouth of the San Juan forty miles below Green River junction; and its entrance by a cañon continuous with that of the Colorado, above and below the point of junction.

2. From the mouth of the San Juan to the Colorado Chiquito, three days' travel in the swiftest portion of the current, allowing

* He was about 30 years of age at this time.

four miles per hour for fifteen hours, or sixty miles per day, would give an estimated distance of 180 miles, including the most inaccessible portion of the cañon.

3. From the Colorado Chiquito to Calville occupied ten days' travel. As this part of the route was more open, and probably comprised long stretches of comparatively still water, it would not be safe to allow a distance of over thirty miles per day, or 300 miles for this interval. Thus the whole distance travelled would be 550 miles, or something over 500 miles from Green River junction to the head of steam-boat navigation at Calville.

4. The absence of any distinct cataracts, or perpendicular falls would seem to warrant the conclusion that in time of high water, by proper appliances, in the form of india-rubber boats and provisions in water-proof bags, with good resolute oarsmen, the same passage might be safely made and the actual course of the river mapped and its peculiar geological features properly examined.

5. The construction of bridges by a single span would be rendered difficult on account of the usual flaring shape of the summits. Possibly, however, points might be found where the mesas approach sufficiently near each other for such a purpose.

6. The width of the river at its narrowest point was estimated at 100 feet, and the line of high-water mark at forty feet above the average stage in August.

7. The long-continued uniformity of the geological formation (termed "white sandstone," probably cretaceous) is remarkable; but under the term may have been comprised some of the later stratified formations. The contrast on reaching the dark, igneous rocks was so marked that it could not fail to be noticed.

8. Any prospect of useful navigation up or down the cañon during the season of high water or of the transportation of lumber from the upper pine-regions could not be regarded as feasible, considering the long distance and inaccessible character of the river banks.

9. No other satisfactory method of exploration, except along the course of the river, could be adopted to determine its actual course and peculiar natural features.

EDUCATION IN FRANCE.

The annual distributions of prizes to schoolboys have recently taken place with the usual pomp all over France, and many distinguished persons who presided over these solemnities have congratulated the country on the perceptible spread of education among us. At first sight it seems good that the national reproach of ignorance which has so often been levelled at Frenchmen should be disappearing. But on consideration it will be seen that the present system of education in France tends chiefly to rear an enormous

class of over-instructed young men, who are ashamed to beg, too proud to dig, but who yet can find no remunerative occupation for themselves. There is too wide a gulf in this country between the education in the primary and in the secondary schools. In the former pupils are just taught to read, write, and reckon badly; in the latter, that is to say, in the lycées, instruction is pushed as far as may be, insomuch that when a peasant's son who has distinguished himself in his village school gets a bourse, or scholarship, which carries him to the lycée, he leaves it the equal in instruction of any rich man's son. But what after that? It appears from statistics that some 80,000 young men leave the lycées and universities yearly to go forth into the world, and that five-eighths of these are dependent on their own exertions for their subsistence. The Ecole Polytechnique provides annually for 150 of them, whom it converts into State engineers and artillery officers; the School of St. Cyr endows another 150 with commissions in the cavalry and infantry. About 400 go into the Church; 300 into the professoriate; while 3,000 more, at most, succeed in winning appointments in the Civil Service, principally through the diligent intriguing of their friends. There remain then, in round numbers, rather more than 45,000 youths who must try their luck as doctors, advocates, commercial clerks, private tutors, actors, or tradesmen. Say that 25,000 among these succeed somehow. Among the number will be men who go in for army-commissions by serving a long apprenticeship as private soldiers; others who, having the good sense to accept any position which offers itself, will waive their pretensions and sink into the position of petty tradesmen; and there will be others again who will manage to get on in life by marrying girls with some money. But there are 20,000 still to be accounted for, and these will become adventurers, and, what is worse, they will be stay-at-home adventurers. It would not matter much that so large a number of educated young men should be thrown as foragers upon the world if France had many colonies, or, to speak more correctly, if the present race of Frenchmen had a taste for emigration. There is room for a good many adventurers in Algeria; but the French, who used once to be such excellent colonizers, have, owing to the alterations which the Revolution introduced into their social system, become disinclined to leave their native country; and they will starve at home, on the chance of something "turning up," sooner than go far afield to look for their bread. The dream of every young Frenchman whose pockets are empty is to marry a girl who has from £2,000 to £4,000, and to earn about £200 a year for himself by means of a situation affording a fixed salary. It is not an extravagant dream, and, to do the Frenchman justice, he is quite happy if he realises it. Having got £300 or £400 a year, he does not seek to enlarge his income, but lives prudently within his means, and invests some savings every year with commendable judgment. The very fact, however, that most Frenchmen should pitch their

ambition so low as to require nothing more than what an Englishman would call a little competency, shows how keen the struggle for life there is; and when one reflects that the thousands of men who covet the position of *petit rentier* are joined annually by 20,000 young recruits fresh from the schools, and with all their talents whetted, according to the newest systems, for the social fray, one cannot wonder at the large number of educated young men who find their way into gaols. The last annual report of the Ministry of Justice dwells upon the increasing number of well-educated persons who are imprisoned for offences against property. M. Victor Hugo and his friends, who used to laud education as the panacea for all social and political ills, may find this a hard fact to digest, but there it lies; and one may add that for determination in offences against life, as well as in swindling, the highly trained young men, who have been through the best lycées, are quite equal to the uncultured rough. Every paid post in France is so keenly coveted that a vacancy will draw hundreds of applicants, and statesmen who are always talking about the necessity for dismissing superfluous employés find themselves reluctantly compelled to add to their number every year, because they are overawed by the mass of candidates. As regards the engineering branches, for instance, the number of young men who qualify every year for the post of Government engineer exceeds by several hundreds the number of places to be disposed of; but to allay disappointment as far as possible the Government goes on multiplying situations, thereby creating a body of civil servants who have not enough to live on, and who grow discontented from seeing all chances of promotion stopped. In France discontent with the Government soon develops into a seditious spirit, and it may safely be said that every office-holder who is dissatisfied with his position is a revolutionist *in posse*. But much more so is this the case with the adventurous young men who have not succeeded in getting any office at all; so that one may conclude the present system of education in France leads to the creation of an annually increasing body of citizens whose profession will be to war on society, and who, politically speaking, will be ready for anything. —*French Correspondent to the Pall Mall Gazette.*

THE DISCOVERY OF THE NORTH-EAST PASSAGE.

Within the present generation, and mainly during the present decade, nearly all the great geographical problems left us by our adventurous ancestors have been solved; all the great lines of exploration have been taken up and worked out with a success that leaves to the future only the details to fill in.

Professor Nordenskjöld, in the steamer *Vega*, has done a thing, in which the element of danger was considerable, in a manner that deserves to be called brilliant. But the danger and the brilliancy are not the only qualities that command our admiration. One of

the most marked features of this expedition is the rigid and cautious scientific method in which it has been conceived and carried out. Nordenskjöld's predecessors were guided by the best knowledge they could obtain, and their expeditions should not be regarded as either unscientific or pre-scientific. When we read of what we are apt to regard as the blind attempts of such brave old heroes as Willoughby, Burroughs, Pet and Jackman, Barents and Hudson, we should remember that their expeditions were prompted, not alone by a reckless love of adventure that cared not whither it led, but were undertaken in the light of, and were guided by the best knowledge attainable at the time. Had it not been for the successes and the failures of Willoughby and those who followed him for 300 years, we should not now have been able to chronicle the brilliant success of Nordenskjöld; and he, we are sure, would be the first to acknowledge his indebtedness to his predecessors, English, Dutch, and Russian. Nordenskjöld's last expedition, in fact, seems to us one of the most striking examples on record of the value of scientific knowledge as a guide to geographical discovery. Long before the *Vega* left its Swedish dockyard Professor Nordenskjöld may be said to have made himself familiar with every mile of the route to be traversed. From Hammerfest to Jugor Strait, through the Murmanian Sea of the Russians, but named after Barents by the Dutch and English, a long series of previous voyages enabled him to tabulate the movements of the ice and the state of the water during all the summer months. He himself has sailed over these waters more than once, and his own experience, backed by that of previous Russian voyagers, enabled him to make sure of the conditions from Jugor Strait to the recently named Dickson Harbour, at the mouth of the Yenisei. From Dickson Harbour to Behring Strait there was only one point along the whole stretch of coast that had not been doubled by those hardy Russian adventurers who since 200 years ago have dared, time after time, to face the dangers of the treacherous ice in their frail shallops. From the records of these various attempts, Nordenskjöld was able to make himself well acquainted, before setting out, with the summer and autumn conditions of the ice along the whole northern coast of the Old Continent. He inferred that by setting out from the north coast of Norway in the end of July he would have the advantage of a wide margin of water so comparatively free from ice as to enable him to reach Behring Strait by September. His prediction has been all but fulfilled; indeed, essentially it was so last autumn, when he reached the northern portal of the Pacific, just within Behring Strait. At the worst he has accomplished in less than a year what it took his predecessors three centuries to do painfully by piecemeal. The dreaded Cape Chelyuskin, the most northerly point of the Old Continent, and the only one that had never been doubled, was passed with ease, and its bearings materially rectified. Floating ice was met with frequently enough, but never in quantity greater

than to cause a slight detour. And thus it may be taken as established that, in normal seasons at least and under conditions not difficult to comply with, the North-East Passage may be traversed safely in a few weeks.

Sweden may be justly proud of her venturous professor, who, indeed, deserves honour at the hands of all civilised countries. At the same time we cannot but remember that the munificent Gothenburg merchant, Mr. Oscar Dickson, who has borne the greater part of the expense of the expedition, is a Scotchman by descent, if not by birth.—*Times*.

REPORTING BY TELEPHONE AT THE PRINTING OFFICE OF THE *LONDON TIMES*.

A new method of reporting the late debates of the House of Commons,—those, namely, which are continued after midnight—has within the last few days been brought into operation in the office of *The Times*; and some account of the method employed will probably be of interest to the public. There has for some time been a tendency among the most prominent public men to deliver their Parliamentary speeches at very late hours, and this, together with the despatch of the first morning trains from the London termini an hour earlier than formerly, has placed great difficulties in the way of Parliamentary reporting. After about 1 o'clock in the morning to produce in time for the early edition a full report of a speech, however important it might be, became a matter of extreme difficulty, and after 2 the record of proceedings became necessarily a mere abstract. But these difficulties seem now to be in a fair way to yield—sufficiently at least for all practical purposes—to the increased powers of work which have been afforded by the judicious application of modern scientific inventions.

The first step in this direction must undoubtedly be ascribed to the increased rapidity of setting up type, which has been due to the employment of a machine as a substitute for the manual labour of the compositor. The most skilful workman, setting up type by hand, would not exceed a general average of about 40 lines per hour, or a *maximum* rate of 50 lines per hour during short periods of great pressure; but the machine, in which the types are brought down and placed in position by striking upon keys something like those of a piano or organ, enables a fair workman to attain an average speed of 100 lines an hour, even when composing from manuscript, which he has to read for himself; and this speed can be doubled, or nearly so, when the operator is assisted by a reader, and thus composes from dictation. The original form of the machine in use at this office was introduced here soon after the Franco-German war, and has ever since been undergoing such modifications in detail as experience has from time to time suggested, until it has now reached a state of very great efficiency. It has for

some time been the custom to transmit the foreign intelligence from Paris, Vienna, and Berlin to this office by means of Hughes's printing telegraph, and to dictate the contents of the telegraphic slip to a compositor at the machine. By this combination remarkable facilities in dealing with late manuscript have been obtained, and it has been possible to carry on the work of type-setting almost to the time of going to press; but the copy received from the House was necessarily somewhat delayed while the reporter transcribed his notes and also in transmission. The compositor was compelled to lag behind the actual progress of the debate, and precious time thus lost at each step of the process mounted up in the end to a considerable total.

At this stage in the history of the matter the telephone was brought into actual operation as a means of verbal communication between distant points; and the conductors of this journal, having obtained permission from the Metropolitan Board of Works to lay down the necessary wires in the subway of the Thames Embankment, formed a new connexion between the House of Commons and the office, and placed one of Edison's loud-speaking telephones at either end. The immediate result of this arrangement has been to bring the compositor at the machine into direct communication with the Parliamentary Reporter at the House, and to enable the debates to be reported and printed from half to three-quarters of an hour later than had previously been possible. The notes made by the reporter can be read directly into the telephone receiver in a room adjoining the gallery, either by the reporter himself when relieved, or by another person employed for the purpose; and the compositor, at his machine in the office, sits with his ears in juxtaposition with the other terminal of the instrument. The plan which has been found the most efficacious for the purpose of shutting out distracting sounds of other kinds is to place the disc of the telephone above and behind the compositor, and thus to arrange two tubes, each with two trumpet-shaped extremities, in such a manner that these extremities are applied at one end to the two sides of the telephone-disc and at the other end to the two ears of the compositor. The compositor is also furnished with a speaking instrument, with a key for ringing a bell, and with a bell which is rung from the House; a simple code of bell signals, consisting of one, two, or three strokes, suffices for the ordinary requirements of each message. The compositor announces by the bell that he is ready, receives a sentence, strikes the bell to indicate that he understands it, sets up the type with his machine, strikes the bell again for the reader to continue his dictation, and so on until the work is carried as far as time will allow. If there is any doubt or difficulty about the words, a bell-signal will cause them to be repeated, or explanations can be sought and received by direct vocal communication. In this power, indeed, resides one of the chief advantages of the method, and one which ought to lead to greater accuracy than has ever previously been

attainable. The names of people, places, &c., can be spelt out letter by letter, if there is any doubt about them.

Telephonic reporting is as yet only in its infancy, and the present mechanical and personal arrangements will, no doubt, be modified in many respects. Enough has been done, however, to show the complete practicability of the method, which seems to hold out great possibilities of further development. There are certain impediments still in the way, arising from the difficulty of protecting the telephone wires against the disturbances caused by induced currents, and also from the effect of certain kinds of vibration in confusing or overpowering the transmitted sounds; but these are matters of detail, which either are, or certainly soon will be, in a fair way to be overcome.—*The Times.*

NOTICE TO CORRESPONDENT.

"B."—The publication of your letter would hardly be decorous, and would certainly defeat your object.

☞ *The Editor invites communications on subjects connected with Education, and also contributions of Educational Intelligence in the shape of reports of meetings, school examinations, &c., from all Officers of the Department, and from other persons interested in Education. Schoolmasters in particular are invited to make free use of the correspondence columns of the "Record" for the interchange of experiences, and the mutual elucidation of difficulties connected with the management of their schools. It is hoped, too, that students will avail themselves of the opportunities offered by the "Record" for the discussion of points of scholarship in Philology and Mathematics, and the communication of "Notes" on their various subjects of study.*

BOOKS RECEIVED.

The Editor acknowledges with thanks the following publications:—

1. The Madras University Calendar for 1880-81.
2. The Madras Journal of Education for March and April.
3. The Journal of the National Indian Association for January to May, 1880.

GOVERNMENT CENTRAL BOOK-DEPÔT.

LIST OF NEW BOOKS RECEIVED IN THE GOVERNMENT CENTRAL BOOK-DEPÔT, BOMBAY, FROM 16TH APRIL TO 15TH MAY 1880.

A Fresh supply of the following books has arrived from England.

ENGLISH.	Rs.	a.	p.
Chambers's Biography	1	0	0
Do. Etymological Dictionary	2	0	0
Do. Moral Class Book	0	12	0
Webster's Unabridged Dictionary, Pictorial edition, without appendices	10	8	0
Ogilvie's English Dictionary	3	12	0
Collins's Pronouncing Dictionary	0	4	0
Do. Dictionary of Derivations	0	8	0

New editions published.

ENGLISH.			
Cooke (S.)—First Principles of Astronomy and the Solar System (Natural Science Series), 2nd Edition	0	8	0
GUJARATI.			
Hope (T. C.)—Departmental 5th Book, 12th Stereotyped edition	0	9	0

New works published.

SANSKRIT.			
Vyâkaran-Mahâbhâshya of Patanjali, edited by Dr. Kielhorn. Vol. I., Part III.	2	0	0

N. V. BAPAT,
Curator.

DEPARTMENTAL NOTICES.

Book Recommended.

NOTICE.

"A short History of India" by J. Talboys Wheeler (London: Macmillan & Co., 1880), is recommended for School Libraries.

By order of the Director of Public Instruction,

JNO. BOCARRO,
Head Assistant.

Poona, Office of the Director of Public Instruction,
11th May 1880.

Book Recommended.

NOTIFICATION.

The following book is recommended for use in Schools and for Libraries :—

"A Physical, Historical, Political, and Descriptive Geography," by Keith Johnston, F.R.G.S., with Maps and Illustrations. One vol., 8vo. (Eward Stanford.)

By order of the Director of Public Instruction.

JNO. BOCARRO,
Head Assistant.

Poona, Office of the Director of Public Instruction,
24th May 1880.

Books Recommended.

NOTIFICATION.

The following books—suitable for Libraries, &c.—can be obtained through the Curator :—

The Life of Dr. John Wilson, of Bombay. 2nd edition. Price 9s. (Murray).

The Life of Dr. Duff, of Calcutta. Price 24s. (Stodder and Houghton).

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
29th May 1880.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM THE 16TH APRIL TO 15TH MAY 1880.

19*th April* 1880.—Mr. Ramrao Venkaji Divgikar, B.A., is appointed Acting First Assistant Master, Karwar High School, *vice* Mr. K. M. Raghavendrarao, on leave.

19*th April* 1880.—Mr. Shambu Chandapa Anikhindikar, F.E.A., Third Assistant Master, Karwar High School, is appointed Acting Second Assistant Master in the same School, *vice* Mr. S. B. Bhate, on leave.

19*th April* 1880.—Mr. Hucharao Anant Dongre, Fifth Assistant Master, Karwar High School, is appointed Acting Third Assistant Master in the same School, *vice* Mr. Anikhindikar, promoted.

19*th April* 1880.—Mr. Anant Shantappa Nadkarni, Sixth Assistant Master, Karwar High School, is appointed Acting Fifth Assistant Master in the same School, *vice* Mr. Dongre, promoted.

19th *April* 1880.—The six months' leave on private affairs, granted on the 7th November last to Mr. Anant Vishwanath, Shastri, Belgaum High School, is cancelled, and furlough for one year, from 6th November last, is sanctioned instead.

19th *April* 1880.—Mr. Krishnaji Raghunath Kelkar is appointed substantive *pro tem.* Assistant Deputy Educational Inspector, Nasik and Nagar Sub-Division, from the 30th of November to 12th of April 1880.

26th *April* 1880.—One year's leave, without pay, is granted to Mr. K. S. Jakati, Seventh Assistant Master, Dharwar High School.

28th *April* 1880.—Two months' privilege leave is granted to Messrs. G. A. Travadi, Sub-Deputy Educational Inspector, Halar Prant; and D. M. Bluebach, Sub-Deputy Educational Inspector, Sorath Prant.

29th *April* 1880.—Two months and eight days' privilege leave is granted to Mr. W. K. Waidya, Assistant Deputy Educational Inspector, Tanna Sub-Division.

29th *April* 1880.—The unexpired portion (nine days) out of the sick leave granted to Mr. N. M. Rego, Agricultural Teacher, Nasik High School, is cancelled.

8th *May* 1880.—Mr. Sitaram D. Bubere, Second Assistant Master, Pandarpur First Grade Anglo-Vernacular School, is transferred as Ninth Assistant Master, Satara High School; and Mr. K. K. Joshi, Ninth Assistant Master, Satara High School, is transferred as Second Assistant Master, First Grade Anglo-Vernacular School, Pandarpur.

11th *May* 1880.—Mr. M. O. Sheth, who is on leave, is appointed an Assistant Master, Surat High School, on Rs. 60; and Mr. S. T. Dave, B.A., is appointed substantive *pro tem.* Assistant Master, Surat High School, *vice* Mr. Sheth.

13th *May* 1880.—Mr. Mevaram Balaram, substantive *pro tem.* Sixth Assistant Master, Shikarpur High School, is allowed six months' leave without pay.

13th *May* 1880.—Mr. Deumal Khemchand Gajra, Acting First Assistant Master, Narayan Jagannath High School, Kurrachee, is appointed substantive *pro tem.* Sixth Assistant Master, Shikarpur High School, *vice* Mr. Mevaram Balaram, on leave without pay.

By order of the Director of Public Instruction,

JNO. BOCARRO,
Head Assistant.

Poona, Office of the Director of Public Instruction,
17th *May* 1880.

THE

Bombay Educational Record.

No. 7.] JULY 1, 1880. [Vol. XVI.

THE MONTH.

Probably few schoolmasters in this country have ever actually seen that famous historical catechism, *Mangnall's Questions*, which the *Saturday Review* for years past has been trying to suppress by epigrammatic ridicule. But there are several imitations of *Mangnall* in Bombay, which are eagerly bought and committed to memory by the school-boy, and which, as teachers know well, are the bane of scholarly work in the history-class. We do not know whether the *Saturday Review's* satire has had the effect of diminishing or of increasing the sale of the catechism; but perhaps the best way of discouraging the use of such school-books is not to drag them out of their obscurity by writing smart things against them, but to show those who buy them something better. We would cordially recommend therefore to senior students in High Schools Professor Barrett's *Questions in English History*, from the Norman Conquest to the reign of James I.* The questions give prominence only to the leading facts of this period; and instead of model answers being appended the student is directed to the place in Green, Hallam, Macaulay, and other standard authors, in which each point is respectively enlarged upon. The manual therefore is meant to encourage industry and thought, and to discourage unintelligent memory-work. And while the book is thus very different in its design from the cram-books in vogue, it is exactly fitted to supersede them. It does all for the student that the latter profess to do, by bringing into relief the essential portions of the history; but it goes far beyond them by showing him how to secure a clear grasp of his subject, by teaching him, in other words, to employ his reason and imagination as well as his memory.

As far as we are aware, Professor Barrett's little book is the only manual, within the reach of the High School student, that proceeds

* Atmaram Sagoon and Co., Bombay. Price 8 annas.

upon this excellent plan. We have before us a compilation by Mr. W. M. Lupton, entitled *Test and Competitive History papers given in the Civil Service, Army, and Navy Examinations, with Answers*; the answers being indicated by figures of reference to a 'history' by Mr. Lupton himself. The weak point in Mr. Lupton's design is that his so-called history is a bare chronicle of events without a single oasis of narrative, description or philosophic reflection on which the reader's weary mind may rest and refresh itself. His system in fact commits the pupil to what we may call the tread-mill of the cram-book. Professor Barrett's book is designed to lure the student away from such drudgery into regions in which the conceptions may be cleared and the understanding interested. His manual should therefore be especially welcome to the teachers of history in High Schools; and we hope that it will meet with sufficient support among them and their pupils to induce the author to follow it up with a second series.

In a second edition of the first series we would suggest that a few more questions should be given on the growth of the English language, on English literature, and above all on the historical geography of the British Isles and of Western Europe. Historical maps are a luxury but seldom seen at present in the history-class. In some cases this is owing, we fear, to the teacher himself never reading anything but the class-book, and to his failing to see how mischievous it is to attempt to illustrate the history of England—under the Norman kings, for example, with a map of Europe in the 19th century.

We would also suggest that the time-honoured but vague and unskilful form of question '*What do you know of* Cranmer?' should be abandoned in a future edition of the *Questions*. In an examination such a question leaves a boy who knows a good deal about Cranmer, in considerable embarrassment as to where he is to begin and how much he is to write; and it is a direct bid to smatterers to learn stereotyped answers by rote. We have, for example, known a whole class in anticipation of this well-known form of question get up such answers as the following:—

"Clive was first a mere clerk; but being of a bold and enterprising spirit he soon exchanged the pen for the sword."

"William II. was called Rufus because he had red hair. He was killed by an arrow in the New Forest A. D. 1100."

Such answers generally secure some marks in spite of the fact (which the examiner's question fails to discover) that such boys are

ignorant of what or where the New Forest was, and of what is the meaning of "exchanging the pen for the sword."

The new Committee of Council on Education in England has been gazetted as follows:—Earl Spencer (Lord President), Earl Granville, Sir W. Harcourt, Mr. Childers, Mr. Gladstone, the Earl of Northbrook, Mr. W. E. Forster, Mr. Dodson, and Mr. Mundella (Vice-President). The Scotch committee consists of Earl Spencer (Lord President), the Duke of Argyll, Sir W. Harcourt, Mr. Gladstone, Mr. Adam, Mr. Mundella, and Mr. Grant-Duff.

Mr. Edwin Arnold, C.S.I., has received a letter from the King of Siam, thanking him for the good feeling shown towards Eastern peoples in his book "The Light of Asia," and appointing him to the Order of the White Elephant.

The property of the city of Paris, which comprises all buildings devoted to public use, is estimated at one milliard and fifty-two millions of francs (42,080,000*l.*). The total number of these edifices is 760, among which are included the Hôtel de Ville, valued at 27½ millions of francs; 20 official residences of mayors, about two million francs each; 76 churches, temples, and synagogues, in which St. Roch figures for 16½ millions, St. Germain l'Auxerrois for 12 millions, the Madeleine for 11½ millions, and St. Sulpice for 9 millions. Among the educational buildings are a vast number of schools and colleges, such as the Lycée St. Louis, valued at 9 millions (375,000*l.*) the Collége Chaptal at nearly 5 millions, the Turgot School at 3½ millions, together with a great many primary schools, some of them estimated at a million each—one group, indeed, in the Rue Servan and the Avenue des Amandiers being put down at 1,916,000*l.* Among the items are included the barracks, public offices, markets, and bonded warehouses, those at Bercy being valued at over 30 millions, and those of the Quai St. Bernard at 27 millions. In the smaller category figure the monuments, fountains, basins, &c., in the several squares and *places*.

The *Lancet* invites teachers and school-managers to supply brief statements of the system employed by them as regards sanitary arrangements in their several establishments. The points to which it specially directs attention are—(i.) the ventilation of school-rooms; (ii.) the length of time spent in study, and the method of

study; (iii.) the posture of the body; (iv.) the management of light; lastly, details on the system of dietary, discipline, and punishments.

The same paper remarks that it will be a happy moment for the health-interests of humanity when the process of "education" is made to include training with a view to the eradication of inherited disease, the repression of morbid idiosyncrasies, and the scientific—that is, physiological and psychological—culture of such faculties and attributes of the mental and bodily organism as shall conduce to perfect health. One step in this direction will be taken when the professional trainers of youth and managers of schools generally are brought to recognise the scope and importance of the work in which they are engaged. At first we must probably be content to struggle for a better hygienic condition of schools and school-houses than at present prevails. Although Russian authorities on this subject think the English school system perfect from a health point of view, and envy us our advanced position, it would be folly to shut our eyes to the fact that there is much in the *régime* of child life which is eminently unsatisfactory both in families and "at school." In respect to the food, the clothing, and the habits of the young much remains to be accomplished before we shall even approximate to a perfect system. Meanwhile, it is, perhaps, in respect to the ventilation of school-rooms, the length of time spent in study, the method of studying, the posture of body long maintained, and the management of light, with the consequent strain on the eyesight of children and of growing youths of both sexes, that improvement is most urgently necessary.

The *Novoe Vremya* says M. U. Arnold has been appointed by the Government as architect for the Siberian University at Tomsk. Arnold has already visited Tomsk, and completed his designs there. The same architect has also been selected by the synod for the construction of a new cathedral at Tomsk, towards which G. Koroleff, a local citizen, formerly mayor of Tomsk, has contributed the sum of 1,000,000 roubles, or 125,000*l*.

A Memorial signed by most of the Head-masters of the English Public Schools, and by other distinguished public men, was presented at the end of 1878 to the Council of the Senate of the University of Cambridge, praying that candidates for an Honour degree might be relieved from the obligation of passing the Greek

portion of the Previous Examination; or in other words, that a knowledge of Greek should no longer be essential to a degree at Cambridge. The Senate thereupon appointed a Syndicate to consider the question; this Syndicate was reappointed in December 1879, and has just issued its Report. From the evidence they have collected from Head-masters and others, they are of opinion that a number of able and industrious students are at present excluded from the University by the necessity of passing in Greek. They therefore recommend that, in the case of candidates for Honours, French and German be accepted in lieu of one classical language. They suggest also, that in order to discriminate Honour-men and Pass-men, an examination be held twice a year in Mathematics, Greek, Latin, French, German, and the Elements of Physics, and that every candidate for the relaxation in respect of Greek, be required to pass in one, but not more than one, of these subjects. It seems highly probable that the Syndicate's recommendations will pass the Senate.

It is stated that the proposal to establish a faculty of Natural Science at Oxford has been rejected by Congregation by a large majority. The intention was to make a faculty of Natural Science co-ordinate with the faculty of Arts, to attach degrees of B.N.S. and M.N.S. to it, and to permit in that faculty alone the omission of Greek as a compulsory subject in the earlier stages of the University course. The measure has undergone many vicissitudes. In one stage it has passed, in another been amended, in another altered, in another rejected. In the early stages the measure met with favour because it was supposed to represent the wishes of the natural science professors, but it presently appeared that the majority of them, headed by Dr. Odling, were strongly opposed to it, on the ground that the new faculty would rank in public estimation as an inferior faculty. In moving the preamble of the amended statute, Professor H. Smith urged that the University had already declared itself in favour of the proposal, that it was a fair compromise with the opponents of compulsory Greek, and it would be easy to induce Parliament to extend to graduates of the new faculty the suffrages and other privileges now enjoyed by the graduates in arts. Dr. Odling, on the other hand, urged that the statute was a sham statute, the whole of its "viscera and vertebræ" having been taken out of it by previous amendments, that the vast majority of the Science professors and

teachers were against it, and that the Parliamentary aspect of the question was full of difficulty. He urged that the proper solution of the question was to be found in removing Greek from the list of compulsory subjects in the Arts course. Professor Nettleship (professor of Latin) followed on the same side regarding this measure as an attempt to deal by a side-wind with the great question of the relation between the older and the more modern studies. Oxford ought to co-operate with Cambridge, where a Syndicate composed mainly of classical scholars had, after collecting the opinions of all the eminent schoolmasters in England, decided to recommend the abolition of compulsory Greek from the honour course in the faculty of Arts. Whether his advice would be followed it was impossible to say. It is, however, quite evident that if Cambridge offers the Arts degree to those who do not bring up Greek, it will not do for Oxford to offer anything less; and if the scientific men think a Natural Science degree undesirable, it cannot be forced upon them.

The subjoined table showing the comparative results of the Examinations held in the three leading Universities of India will doubtless prove interesting to some of our readers:—

Results of the Indian University Examinations for 1879-80.

	Calcutta.		Madras.		Bombay.		Total.	
	Registered.	Passed.	Registered.	Passed.	Registered.	Passed.	Registered.	Passed.
Matric. Exam. ...	2,697	1,069	3,357	1,094	1,093	436	7,147	2,599
F. E. A.	1,040	320	597	295	150	71	1,787	686
B. A. Examination	319	112	181	83	97	51	597	248
M. A. Examination	19	10	8	2	6	4	33	16
B. L. Examination	89	47	32	4	29	20	150	71
Honors in Law or M. L.	1	1	2	...	...	...	3	1
First M. B. Exam.	29	14	3	2	32	28	64	44
First L. M. S. do.	18	4	6	6	...	...	24	10
Second M. B. do.	17	7	...	...	...	...	17	7
Second L.M.S. do.	111	65	2	2	29	16	142	83
M. D. do.	1	1	...	...	...	...	1	1
B. C. E. do.	5	...	8	5	31	28	44	33
L. C. E. do.	21	...	...	...	19	11	40	11
Total,..	4,367	1,650	4,196	1,493	1,486	665	10,049	3,810

At the last Oxford Convocation the honorary degree of D.C.L. was conferred on—Lord Aberdare; the Right Hon. Henry Fawcett, M.P.; Sir Richard Temple; Sir Alexander Grant, M.A., LL.D.; Admiral Sir Astley Cooper Key, K.C.B.; J. J. Sylvester, F.R.S., Professor of Mathematics in the John Hopkins University, Baltimore; Joseph Lister, F.R.S., Professor of Clinical Surgery, King's College, London; John Everett Millais, R.A.; George Frederick Watts, R.A.

Mr. Chintamany Raghunath Chary, F.R.A.S., the distinguished native astronomer, died a few weeks ago at Madras. He had been for seventeen years Head Assistant in the Madras Observatory, and he was the discoverer of two variable stars, viz., R. Reticuli in 1867, and and V. Cephei in 1878. Mr. Chintamany, it is said, was the only native of India who has yet been known to discover new celestial objects.

The Journal of the National Indian Association says that the Madras School of Art has attained considerable success in the production of painted and stained glass.

The St. Gothard Tunnel, which is now nearly completed, will open communication between Switzerland and Italy. It is nine and a half miles in length, and is therefore the greatest tunnel in the world. Its width is twenty-one feet. Boring was begun at both ends at once, and went on at the rate of eighteen feet a day, until, after seven years and five months, the two parties of workmen met. The greatest difficulty they had to contend with in the course of their work was the want of fresh air. Several deaths occurred among the men from this cause. It is estimated that the tunnel will cost only about 200 lakhs. The Mont Cenis Tunnel (seven and a half miles long, begun in 1857 and finished December 1870) cost about 600 lakhs of rupees. When the St. Gothard Tunnel is open for public traffic, the Indian mail will pass through it, as the route is shorter than the Mont Cenis route through France.

UNSEEN ENEMIES.

Professor Ray Lankester, F.R.S., lately delivered a lecture in London under the auspices of the National Health Society on "Germs—Unseen Enemies." The Professor commencing with the simplest description of germs, as observed in growing plants, and

such minute organisms as are found proving their existence by causing spontaneous growth on any exposed surface of earth or other suitable medium for their development, described with graphic power the principles of fermentations, not only those which are associated with the production of alcohol and acetic acid, but also those peculiar influences which are connected with the decay of animal and vegetable life. The various forms assumed by the *vibrios*, with the important facts of their growth and multiplication, were demonstrated by diagram, and shown also microscopically, while the methods that can be adopted for their destruction were also dwelt upon. It seemed, he said, that heat is a certain destroyer of all germs, if it be of long continuance and of sufficient degree. Boiling is an undoubted means of effectually "sterilizing" all *vibrios*; and in some very practical and laudatory remarks on the antiseptic views of Professor Lister, Mr. Lankester stated that a solution of carbolic acid, 1 in 20, will, if it be brought thoroughly into contact with germs, at once render them inert. The classification of these "unseen enemies" was, he allowed, not very perfect. It was at present only based upon the effects produced rather than on any special variety in their growth or appearance. Three varieties were described—namely, those producing odours, those producing coloured products without odour, and those recognized as disease-producing germs. All bad smells, except those arising from chemical works and their products, were, he stated, due to the presence of *vibrios*. The lecturer rather startled the audience by assuring them that the flavour of cheese merely depended upon the presence of some of these germs, but the minds of his hearers were set at rest when assured that both the odorous and colour-producing *vibrios* were harmless, and therefore did not need any precautions further than acting as a warning to remove as far as possible bad smells and disagreeable flavours. With regard to the disease-producing varieties, Professor Lankester stated that it was yet quite a matter of doubt whether (with the exception of two diseases—malignant pustule and splenic fever) the presence of the particular form of bacteria caused the disease, or whether it was not merely associated with the condition of the patient and the debilitated state of the system generally. The Professor, in the course of his lecture suggested that it would be profitable, in the best sense, to establish laboratories and suitable opportunities for prosecuting original scientific research by competent professors into the many wide and important questions associated with the subject of the presence of unseen enemies in the daily life of our population.

THE TALLEST TREES IN THE WORLD.

The Mammoth Tree of California (*Wellingtonia gigantea*) was recently considered the giant of the vegetable world. It is found only in a small district of California, on the Sierra Nevada, about

4,000 or 5,000 feet above the sea. The stem attains the height of 100 feet, and sometimes more. One tree is known to be 321 feet in height, and near it is a longer one, which has fallen. Another tree is 102 feet in circumference at the base. The bark is about 14 inches thick. The trunk of a tree lying on the ground has been burned hollow, leaving a small run of only two or three feet in thickness. Three men riding abreast have passed through it on horseback. One tree, called "The Mother of the Forest," rose to the height of 363 feet; another is said to have been 450 in height, and 120 in circumference at the base. The age of such trees has been estimated at more than three thousand years. They would be beginning to spring up about the time the Aryas entered India.

Australia now claims to have the tallest trees in the world. A fallen gum-tree (*Eucalyptus*) was lately discovered in Gippsland, Victoria, which measured 435 feet from the roots to the top of the trunk. The crest of this tree was broken off, but the trunk at the fracture was nine feet in circumference, and the height of the tree when growing was estimated to have been more than 500 feet. In another district of the same colony, a specimen of the "Almond Leaf Gum" has been discovered, measuring 380 feet from the ground to the first branch and 450 feet to the topmost wing.—*Progress.*

DEBATE IN THE HOUSE OF LORDS ON LORD NORTON'S MOTION REGARDING THE ENGLISH PUBLIC-ELEMENTARY-SCHOOL CODE AND SECONDARY EDUCATION.

On Monday evening (May 31st, 1880,) *Lord Norton* rose to move that the present introduction of secondary instruction into the publicly-aided elementary schools required consideration, and that the Code of Regulations of the Committee of Council on Education be referred to a select committee for revision and simplification. He said that, when this notice of a debate on national education was first given, general discussion, occasioned by recent School Board elections, showed the necessity of Parliamentary consideration. Since then, the report of the Education Department had disclosed internal misgivings and criticism on the part of the inspectors themselves, calling for a decision as to changes going on. Above all, a petition from the London School Board now raised the fundamental question up to what age education for children should be publicly provided; that was, whether to the end of the second period of education, or only the first. He might add that the change of Ministry, as a point of new departure, made the consideration still more opportune. He asked for no alteration of the Education Acts. He rather called in question a departure from them. He did not now ask for any consideration of the expenditure, though that was a very serious matter, and one much in the dark. But it was

not the amount, but one particular appropriation of this expenditure, that he called in question. To remonstrances about the amount, the London School Board always replied that they were adding thousands of children to their schools; but this reply left two main questions open:—(1) Were the children suited and intended for these schools? (2) Was the schooling given suited to the intention? He would show what had from the first been, and still was, the avowed intention of Parliament: then, how we were departing from it; then, he would ask whether we should adopt that departure; and, if so, whether it should not be in a very different way. National education was begun in this country nearly a century ago by private societies—the National, and British and Foreign. This work was taken up by Parliament about half a century ago. The reference to the first committee of the House of Commons on the subject was "better provision of education for the poorer classes, the present being limited in extent and defective in quality." In 1816 Lord Brougham obtained a select committee on "the education of the lower orders," who reported that "a large number of poor children were without means of instruction." In 1833 Lord Althorp obtained a Parliamentary grant of 20,000*l.*, described in the Treasury minute as "in aid of private subscription for educating children of the poorer classes, and to be kept strictly to that purpose." In 1835 Mr. Slaney's committee was "on the education of the poorer classes," and reported that "there were worthless day and dame-schools, and the educating of the working class was lamentable, and strenuous efforts on the part of the Government were urgently needed." In 1846 the well-known minister of that year referred expressly to "schools for the poor, in which reading, writing, and the first four rules of arithmetic and elements of geography were to be taught, and sewing to the girls." But the debate in 1870 on the present ruling Act was the latest expression of the intention of Parliament. Its author, Mr. Forster, to whom the country was greatly indebted, stated that his object "was a primary popular education, affecting not only the intellectual, but moral training of a vast proportion of the working classes." In the debate on the amending Act of 1876, Lord Sandon, as minister, gave it as his idea that "no child should be allowed to enter life's struggle without having those simple tools needed by present civilisation:" and Mr. Bright, in a debate raised by Mr. Dixon, said what was wanted was the "three R's"—not teaching too many things, but to put the child's foot on the ladder by which he might rise. The intention was clearly elementary teaching of children of the working class. He would now show how we were departing from that intention. So far back as 1860 the Commissioners on Popular Education reported that "the children were not, in fact, receiving the kind of education they required; the instruction was too ambitious and too superficial in its character, and too exclusively adapted to the older scholars to the neglect of the younger." In the debate of 1876

Lord Sandon said the present plan "deprives a child of the tools he wants by giving him wrong ones." Mr. Bright said "the education given was not worth the price paid for its purpose." In a debate raised by Mr York last year Lord George Hamilton, as minister, said:—"We had drifted from a position in which the grant was given to promote local voluntary effort in extending education among the working classes to a position where any person could send his child to an elementary school, in which, provided the fees charged were not more than 9d. a week, a portion of the cost of educating would be defrayed by the State." But what said Mr. Matthew Arnold, senior inspector of the Department, in the report just issued? He prayed for more simplicity in teaching children from four to fourteen. He said:—"The system becomes ambitious and complicated, attracting the attention of a number of ingenious and active-minded men. Some knowledge, I allow, may be given in the most elementary practice of reading, and a faculty for reading given; but children of that age are not subjects for mathematics, German, mechanics, animal physiology, and physical geography." Such were the specific subjects of secular instruction now introduced in what was called the fourth schedule. No one grudged these children the very best education they could get in school up to the early time when their education took the form of industry, nor the seeds of further knowledge after. But cramming bits of science into the course of primary instruction was not the best education, though the earliest practice of reading might enlist interest and thought in its process by taking subjects of consecutive study. What specially needed observation was that the advance had not been made by Parliament, but by the Executive Department. As a striking instance, the Act of 1876 authorised the franking from fees of a child who, at the age of eleven, could get a certificate of proficiency in the "three R's," subject to the regulations of the department; upon which the department immediately made regulations, adding their specific subjects to the "three R's," so entirely altering the legislative provision; and now that the Code proposed to restrict the specific subjects to the higher standards, this alteration took from the reach of the poorest children the franking from fees specially intended for them. The elementary education had been involved in neglect and confusion; and, as Mr. Forster predicted in 1870, the middle class had stepped in, saying, "There must be education found for us," and America was quoted. The American example was wholly misapprehended. Every State required each township to levy a school tax on all property, personal as well as real, by which three grades of schools were provided. The first took children to the age of fourteen; the second to eighteen; the third was complete scholastic training. The whole system furnished every class with the schooling it wanted, at a charge corresponding. It was called free, as being without fees, but was paid for by taxation, which fell practically in proportion to its

use. What we were doing was very different. We were using a school tax (by-the-bye, of very unequal incidence) in a random thrust of bits of secondary instruction, to the injury of our primary schools. Three kinds of mischief followed our present confusion:—1. Public aid being given to results in examination, a show of the higher results must be the master's aim, to the neglect of the elementary teaching. The proof of this was the department return showing a large percentage of failures in one of the "three R's" by those going up for examination in higher subjects. There was no security found in the condition that none were presented unless 75 per cent. of the school had passed the lower standards. 2. The higher instruction so forestalled was worthless, desultory, and superficial, as quickly lost as acquired, and a bad exchange for the practice of intelligent reading and good writing. Mr. Hakiston complained of the blank look of the children when asked to give the meaning of the simplest term in the science they were examining, and of ordinary writing lessons having become obsolete. He would like to see the whole fourth schedule of special subjects expunged. He thought a mere smattering of general knowledge of less educational value than a thorough drilling in any one of its ten subjects; but such a drilling could not be given in an elementary school without neglect of thoroughness in more essential things. 3. It acted as a Government bounty, artificially disturbing the course of social life. The first intention of saving children of the working class from neglect of elementary instruction was changed to giving a bonus to raise them from the working class—a sort of protective duty to develop a cheap service of clerks from the manual labour market. Ploughboys trained in early skill were getting scarce, and plain needlework was not to be had as formerly. But a double misconception lay at the bottom—(1) That all education was in book-learning and none in industry; and (2) that manual labour was discreditable. He asked, then, for consideration whether Parliament really meant to undertake public secondary education; and, if so, how to avoid the present confusion of it with the primary, and on what terms the secondary education should be offered. A higher school had been set up at Bradford and at Barrow. But there the elementary schools still attempted the higher subjects, and the higher schools commenced with the elements, only as a higher fee. The distinction, therefore, was of class, not subject; and the confusion of education was only duplicated, not got rid of. The two recipients of public education were aptly designated as the "ninepenny respectables" and the "twopenny slums." There was already too much of this unsound principle running through our system, that a public subsidy was offered to much of the same education at different prices, according to the supposed ability of the recipient to pay. He knew of schools where the "ninepennies" and the "twopennies" were taught in separate rooms adjoining, and the distinction was kept up in the play ground. He would not

weil to show the waste of teaching power and cost incident to this sort of separate treatment . . . . . .
The noble lord concluded by moving his resolution.

The *Duke of Richmond and Gordon*, having been at the head of the Education Department* for the last six years, wished to say a few words. His noble friend had spoken of the Code as being in such a condition that nobody could understand it; but he could not think that the authority on which he based that opinion was a very reliable one, or that the gentleman he had quoted could have given much time or attention to the question. There were certain points in which he agreed with his noble friend; but he was not able to concur with him in his general conclusions. On the contrary, he thought that the children of the country had derived very great advantages from what had been done in 1870 and since that date. His noble friend said that the intention of Parliament was to educate the working classes, but that the Education Department, not content with confining itself to the "three R's," had gradually raised the standard, until it was giving the children of those classes quite a different sort of education, and one which was not necessary for persons in the station which they were to fill hereafter; and yet his noble friend seemed to approve the limit of age being fixed at fourteen. He hardly thought his noble friend would argue that, however quick and intelligent children might show themselves to be, they ought to be kept at the "three R's" up to the age of fourteen, and that after they had acquired those, no further education should be given them during the rest of their time at school. In 1876 his noble friend Lord Sandon proposed in the other House of Parliament that the course of education should be extended to various standards. He was rather surprised to hear his noble friend treat the question as if the whole action in respect of Codes was taken by the Department, and not by Parliament. But that was a great error, because after the Department drew up a Code, it must be laid on the tables of both Houses of Parliament; and, until it had laid on those tables for thirty days, it could not be carried into effect. But his noble friend's answer to that was, that nobody read the Codes when they were laid before Parliament. If that were so, the Department could not be blamed for it. Then his noble friend, as showing the evil done by raising the standards, told their lordships that presenting children for examination in the higher branches led to their neglecting the "three R's," and he referred to reports in support of that assertion. If his noble friend read the appendix to those reports he would find that was not the case. In 1879 the percentage of the first standard which passed in the three subjects was 82; that of the second 87; that of the third 85; that of the fourth, 85; that of the fifth, 85; and that of the sixth, or highest, 90. He could not admit that the Education

* As Lord President of the Council of the Committee on Education.

Department had done what his noble friend alleged, viz. departed in a blindfold manner from what was the intention of Parliament when the Act of 1870 was passed. He believed, on the contrary, that, since the passing of that Act, the Government with which he had been connected had carried out the intentions of Parliament as religiously and scrupulously as Mr. Forster himself could have done, had he been at the Department the whole of that time. He said, without fear of contradiction, that from the year 1870 to 1880 the intention of the Legislature had been carried out in the working of that Act, and that it had not been departed from in the blindfold manner which his noble friend described. He trusted that his noble friend opposite would not agree to refer the Education Code to a select committee. If his noble friend opposite meant to inaugurate his career as Lord President by giving up all the functions which he was entitled to exercise, and to throw on their lordships' House the duty of revising the Code, he should be very much astonished indeed. But knowing, as he did, his noble friend's character, he thought he would be the last person to throw upon Parliament what it was the proper and legitimate duty of the Education Department to undertake.

*Viscount Sherbrooke** thought that no one could allege that the original Education Code was otherwise than simple and intelligible, and directed to an object which was easily to be understood, because that Code was framed on this principle:—They thought that it was necessary that the poor of this country should be taught certain elementary things. They fixed upon the things that were to be taught, which were three in number—namely, reading, writing, and cyphering; and they gave grants to the schools just in proportion as they taught those subjects. The question which the House had to consider was, whether they should give their approbation to the new principle which had since then been admitted. He would take the liberty of stating to the House simply what the difference between the two principles was. There had been three things for which grants had been made—reading, writing, and cyphering; and now the matter stood thus:—The following subjects entitled schools whose pupils could satisfy these conditions to grants. They included, in addition to the subjects above named, the learning of a certain quantity of English verse by heart—say, 100 to 200 lines; and that was to entitle the school to 4*s*. Next came mathematics, then Latin, then French, then German, then mechanics, then animal physiology, then physical geography, then botany, and last, and best of all, domestic economy. He confessed that he had a very strong dislike to the whole of those additions. He could not see any advantage in them at all. The great advantage of reading, writing, and cyphering was that they were things which could not possibly be got by cramming. If a man said he could read or write, they could

* The Right Hon. Mr. Robert Lowe, who has recently been raised to the peerage.

put a book or a pen in his hand and test his assertion. Cipherings, too, could be tested with equal facility and certainty. There was no possibility of any trickery in regard to those things; and that was a very important consideration, because the moment they got into such subjects as animal physiology, physical geography, or mechanics, there were a number of phrases which could be learnt by heart, and applied, it might be not very accurately, but which would convey to the examiners the idea that a pupil possessed knowledge which he did not in the least possess, simply by the use of catch-words. If the boy did not use those phrases or catchwords aright it was a mess, and that was all. If he happened to use them aright there was 4s. for the school. The inspector could not always be varying the questions, and the teacher would very soon come to know what questions would be put to the boys. The consequence would be that it would be forced upon the school to have a system of cramming the boys, by which they would be enabled to answer the questions that were likely to be asked. He had himself been chairman of a committee appointed by the House of Commons to inquire into a case where a great deal of money was paid for the ostensible education of boys, who were crammed in the most shameful and scandalous manner; and yet such was the *esprit de corps* among the officials of that school that they defended those who had been guilty of such fraudulent practices. It was most essential that they should adhere as closely as they could to something which admitted of absolute verification, and he was quite sure that they made a very false assumption if they supposed that they were in a condition to go into those altitudes of education. With regard to reading, he could give evidence of his own on that subject. It had been his habit for a great many years always to have a boy to read to him in consequence of the nearness of his sight. He had always taken them from the sixth standard; and he had never, on any single occasion, had a boy who could read properly. He had never had a boy whom he could trust with words of three syllables. Of course, what he was told was that the boys gave up reading when they got to the sixth standard. They then devoted their time to poetry, mathematics, and other things, and lost the power of reading properly. He thought the proper course would be to reconsider their original proposition, which was intelligible. Reading was everything. Without reading nothing was done, and nothing could be done. That upon which everything depended in education of the poor was that they should be able to read, and to read so fluently and so easily that it would be no pain and no trouble to them to do it. Therefore, as to writing and ciphering, he looked upon them as perfectly subordinate to reading. It was an error to put them on an equality. He thought that two-thirds of the payments should be given for success in reading, and the other third be given for success in writing and ciphering.

Lord Aberdare said he had had the practical management of

schools attended by upwards of 2,000 children: he had closely watched the operation of the system of teaching in those schools, and on no one occasion during twenty years had he been absent from the examination. He would undertake to say that reading during the last twenty years had improved immensely in fluency, in intelligence, and even in that which was most wanting—intonation. Reading which would have passed some years ago would now be objected to by the examiners. He had heard thousands of boys who, though they laboured under the disadvantage of hearing Welsh spoken at their homes, read with the greatest intelligibility a newspaper put into their hands, or some book produced by the inspector which they had never seen before. It was objected that we were raising a middle class of schools that the public ought not to be called upon to pay for. Let us clearly understand what the country was paying for. The Government paid 2,000,000*l.*, in round numbers, for education, and of that sum only 20,000*l.*—less than a hundredth part—was paid in respect of those higher subjects. He rejoiced to hear that there was no intention of appointing a select committee to inquire into the subject, and that the further consideration of the matter was to be left in the hands of the President of the Council.

Earl Fortescue thought that the main difficulty which had arisen in reference to this educational question was the result of the over-centralisation and bureaucratic tendencies of the two successive Governments which had held office during the last twelve years. It had been said that children should be kept at school until fourteen years of age, but the amount and the importance of the labour which lads between ten and fourteen years of age could perform should not be ignored. Since the present educational system had come into operation the weeds had very much multiplied in Gloucestershire, which was once regarded as the garden of England, weeding being peculiarly the work of children, whose labour was cheap and whose sight was keen, while their fingers were nimble. He entirely agreed with those who thought that higher education should be placed within the reach of the boys of the wage-class who showed exceptional talent, but that was no reason why the standard of the masters should be raised throughout the country. The result of the plan to which reference had been made was, that it was a forcing-house system which produced a large crop of expectant pupil-teachers, and, also, of increased expenses as far as the wage-receiving classes of society were concerned. It was, in his view, inevitable that to provide free education for the children of the middle classes would be to sap the independence of such classes in the same way that the independence of the wage-earning class had been sapped to a certain extent by the system already pursued. He could not conceal from himself that the tide of public opinion had to some extent turned against a self-supporting system of education. But the general public opinion in England was slow to express itself; but, when formed, was a resolute one, and would support those who were anxious to return to the old

English habit of self-help, and who thought that a certain amount of higher education might be too dearly bought at the cost of a spirit of independence and self-reliance.

*Earl Spencer** congratulated the House on the impartial tone which had been evinced throughout the debate. A great many subjects had been touched upon, as to some of which he would not follow the noble lords who introduced them. He would not go into a comparison of the American system of education with that of this country, nor would he enter on the subject of training colleges or on that of the influence of the education of children on agriculture and the increase of woods. He thanked the noble duke, his predecessor in office, for having so clearly stated the views of the late Government on this subject. With most of these views he was happy to think he concurred. Noble lords had attacked the existing system of education on several grounds. First, they said that the Department had been gradually drifting out of the position in which it was placed by Parliament; that it had exceeded the power that Government gave it, and had left the ground it was told to take up with respect to education. Further than that, they were told that the system had sacrificed elementary education in order to give a higher education than was necessary to children attending the primary schools; and, lastly, that the Education Department had been, if he might use the word, poaching on the ground which ought to be occupied by the Endowed Schools Commission. He did not think that they differed materially as to what was the intention of Parliament with regard to the education to be given in the primary schools. . . . . What was considered to be primary education? Were we to confine the course of the education to be given in primary schools to the "three R's?" That was quite impossible, and we were obliged to add to those important subjects others in which instruction was required by the working classes of this country. Would the working men of England and Wales be able to compete with the working men of Scotland, if primary education were to be confined to reading, writing, and arithmetic? Scotland had already gone to great lengths, and a much higher education was given in the ordinary schools than was given in the schools of this country. Scotland was not the only country with which the working men of England and Wales had to compete. They had to compete with those of Switzerland, Germany, and Austria—countries in which education exceeded anything that we attempted. It was most important that children should not only read mechanically, but that they should with reading improve their intelligence in respect of many of the matters which were designated by high-sounding names, but which on analysis proved to be but the simplest rudiments of information on subjects about which it would be admitted they ought to be informed. Nothing could be more important to all than some know-

* Lord President of the Committee of Council on Education.

ledge of animal physiology; and the subject could be made interesting by the teacher, as it was in a little manual on the subject just drawn up by Professor Huxley. He attached as much importance as any to good reading, and he certainly thought we should have a better chance of getting it if intelligence were developed up to the point of interest in the subjects that were read about. Was it to be said that in no case a child who remained at school should advance to any higher subject? Children were obliged to attend up to a certain age unless they had passed a certain standard, and, if the parents desired them to remain longer, it would be exceedingly hard to say they should learn nothing more that would develop their intelligence and increase their usefulness in life. But the fact was that very few indeed got into these higher subjects. If he thought these subjects were being taught in such a way as to interfere with the "three R's," or to stimulate premature cramming he would be the first to say that such a practice must be stopped. His impression was that nothing of the sort took place, and no answer had been given to the argument based on the figures, which showed that the greatest efficiency in elementary subjects went along with the teaching of the special subjects. As to the sixth standard children not being able to read to the satisfaction of the noble viscount, were they perfectly at their ease in his presence? He was very critical, and it was very probable that even boys from the public schools would not read aloud so as to satisfy him. It must be remembered that before any children could be examined in specific subjects, there must have been 75 per cent. of passes in ordinary subjects, to which a certain proportion of time must have been allotted, and these were checks upon cramming. There might be schools in which the scholars failed to pass in one of the elementary subjects, but those, who had the most experience of School Board schools in London and the country, said those scholars who could read best were those who passed in the higher subjects. As to the graded schools of Bradford and Barrow-in-Furness, nothing was done by them in contravention of the conditions of the Parliamentary grant. It was found that by grading you could attain at once both efficiency and economy in the teaching of higher subjects by qualified teachers to those who had passed the standards, and in separately instructing younger and less educated children by efficient teachers not so highly paid as those required for the advanced subjects. There was in the arrangement a double benefit. There was the achievement of economy by organisation, and there was an increase of efficiency in both the advanced and the elementary school. The plan had hardly come into operation yet, and the schemes before the Department would receive the best possible attention. If they accorded those towns the privilege asked for, it would be because they did not believe that by doing so they would be encouraging middle-class education in elementary schools, or in any way interfering with the grammar schools. No doubt the Code was complicated; but that was

because those most experienced in education had found it necessary, from time to time, to adapt it to the needs of the country and to counteract abuses. Having so recently taken office, he could not at once promise any alteration in the Code; but he would say that the subject should receive full and careful consideration; and, if it were found possible, without injury to primary education, to simplify the Code, the effort should be made in the interests of education itself. They would have the advantage of the valuable assistance of the Vice-President, who for many years had taken the deepest interest in the primary education of the country; they would have the advantage of a large staff of most able and zealous inspectors who had studied the subject fully; they would have the advantage of gentlemen in the Education Department of the highest knowledge and experience; they would also have the advantage of the experience gathered since the enactment of 1870 by the School Boards throughout the country. He, therefore, would undertake to do this—they would carefully consider all that had been said that night, and all they might hear from different parts of the country, in reference to this subject; and they would hope to be able, either with or without an Act of Parliament, to simplify this matter without altering in any way the standard of education in the country. He most distinctly and emphatically declined to entertain for one moment the proposal made to their lordships. He need not dilate upon it; other noble lords had stated all that was necessary in much better terms than he could employ. He sincerely trusted their lordships would not remove from his shoulders, and those of the Department, the duty of dealing with this matter.

Lord Norton, being satisfied with the discussion that had taken place, then withdrew his motion.

NOTICES TO CORRESPONDENTS.

U. N. M.—Declined with thanks.

A Master.—Your letter shall appear in our next number.

An Elphinstonian has not sent us his name.

GOVERNMENT CENTRAL BOOK DEPÔT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th May to 15th June 1880.

Fresh supply arrived from England.

ENGLISH BOOKS.	Rs.	a.	p.
Scott's Lady of the Lake	0	8	0
Pope's Homer's Iliad	0	8	0
Mackay's Outlines of Geography	0	8	0
Cowper's Poetical Works	0	8	0
Stormouth's Etymological Dictionary	3	12	0
Colenso's Arithmetic	2	4	0

	Rs.	a.	p.
Philips's Atlas for Beginners	1	4	0
Scott's Lady of the Lake (Pocket Classics)	0	4	0
Reid's Modern Geography	0	8	0
Barnard Smith's Arithmetic	2	4	0
Heywood's National Atlas	0	8	0
Lamb's Tales from Shakespeare	0	8	0
Morell's Analysis of Sentences	1	0	0
Collin's History of British Empire	1	4	0
Routledge's Diamond Dictionary	0	8	0
Wrightson's Manual of Agriculture	1	0	0
Tanner's Agriculture (Science Primer Series)	0	8	0
Huxley's Introductory Science (Science Primer Series)	0	8	0
Hooker's Botany (do.)	0	8	0
Geikie's Physical Geography (do.)	0	8	0
Do. do. Geology (do.)	0	8	0
Foster's Physiology (do.)	0	8	0
Jevon's Logic (do.)	0	8	0
Do. Political Economy (do.)	0	8	0
Lockyer's Astronomy (do.)	0	8	0
Huxley's Physiology	2	4	0

ENGLISH MAPS.

Johnston's School-room Maps, coloured, varnished, and mounted on cloth and rollers with Hand-book as under ..... each	6	0	0
Europe ..... British Isles.			
Asia ..... England.			
India ..... The World.			

New Editions published.

MARATHI.

Departmental 1st Book, Modi, by Rao Saheb S. V. Patavardhan, 3rd Edition...	0	2	3
Do. 2nd Book do. by do 2nd Edition...	0	3	9

GUJARATI.

Departmental Fourth Book, by T. C. Hope, 11th Edition, stereotyped	0	6	0

KANARESE.

Departmental 1st Book of Poetry, 3rd Edition	0	2	0

New Books published by the Department.

KANARESE.

Departmental Fourth Book of Kanarese	0	8	0

Books purchased by the Department.

PERSIAN.

Primer, by Sorabshaw Byramjee Doctor	1	0	0
Student's Persian-English Dictionary, by do. ...	3	8	0

ENGLISH.

Cunningham's Sanitary Primer 0 1 0

Government Publications for Sale.

ENGLISH.

A Manual of Family Medicine for India, by W. J. Moore, 3rd Edition 4 0 0

N. V. BAPAT,
Curator.

DEPARTMENTAL NOTICES.

Errata in the Educational Directory for 1879-80.

NOTICE.

The length of service of Dr. Cooke, Principal, College of Science, Poona, was, on 1st November 1879, 14 years, 4 months, and 24 days, and not 13 years, 3 months, and 20 days, as wrongly entered in the Educational Directory for 1879-80, published in the March number of the *Educational Record*.

The length of service of Mr. Narayan V. Sathé, Acting Head Master, High School, Ratnagiri, was 11 years, 11 months, and 18 days, and not 10 years, 11 months, and 18 days, as wrongly entered in the abovementioned Directory.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
17th June 1880.

Official Correspondence.

NOTIFICATION.

The subjoined Government Circular No. 1639, dated 8th June 1880, General Department, is published for the information of Educational officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
21st June 1880.

CIRCULAR.

No. 1639 of 1880.

GENERAL DEPARTMENT.

Bombay Castle, 8th June 1880.

MEMORANDUM.

As considerable laxity has been lately observed in regard to the mode of addressing, numbering, and dating letters, the attention of

all Heads of Offices and Departments is invited to Government Resolution No. 1407, dated 4th May 1876 (printed below), and they are requested to carry out the instructions therein contained carefully in future.

JOHN NUGENT,
Acting Secretary to Government.

To the several DEPARTMENTS of the SECRETARIAT, all HEADS of OFFICES under the several DEPARTMENTS of the SECRETARIAT, the ACCOUNTANT-GENERAL, the PRIVATE SECRETARY to HIS EXCELLENCY the GOVERNOR, the MILITARY SECRETARY to HIS EXCELLENCY the GOVERNOR.

Official Correspondence.

No. 1407.

GENERAL DEPARTMENT.

Bombay Castle, 4th May 1876.

Memorandum from the Survey and Settlement Commissioner, S. D., No. 532, dated 13th April 1876—Stating, with reference to Government Circular No. 1040, dated the 29th March last, that many years ago the following form for addressing, numbering, and dating official correspondence was issued, which was in every way most convenient to sender and recipient; and, as it has to some extent of late years fallen into disuse, suggesting that it be now again issued as a form to be adhered to:—

No. *of* 1876.

From A. Jones, Esq.,
Collector of

To B. Smith, Esq.,
Collector of

Camp, 1*st May* 1876.

Sir,

RESOLUTION.—The Heads of Offices generally throughout the Presidency are reminded of the existence of the form, and of the desirability of carrying out strictly the previous instructions of Government.

E. W. RAVENSCROFT,
Acting Chief Secretary to Government.

To the SEVERAL DEPARTMENTS of the SECRETARIAT, all HEADS of OFFICES under the SEVERAL DEPARTMENTS of the SECRETARIAT, the ACCOUNTANT-GENERAL, the PRIVATE SECRETARY to HIS EXCELLENCY the GOVERNOR, the MILITARY SECRETARY to HIS EXCELLENCY the GOVERNOR.

Abolition of Appointments.

NOTIFICATION.

The subjoined Government Resolution No. 1696, dated 17th May 1880, Financial Department, is published for the information of Educational officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
25th June 1880.

Establishments. No. 1696.

FINANCIAL DEPARTMENT.

Bombay Castle, 17th May 1880.

Resolution of the Government of India, Department of Finance and Commerce, No. 298, dated 28th April 1880 :—

"With reference to Rule 2 under Section 59 of the Civil Pension Code, the Governor-General in Council is pleased to decide that unless it contains an express statement to the contrary, an order for the abolition of an office or appointment shall not be brought into operation till the expiry of three months after notice has been given to the officers whose services are to be dispensed with on such abolition. The immediate Head of the Office or of the Department will be held responsible that there is no unnecessary delay in giving such notice."

RESOLUTION.—Copies to be forwarded to All Departments of the Secretariat and all Heads of Offices under those Departments (except Military) for information and guidance.

JOHN NUGENT,
Acting Secretary to Government.

To all DEPARTMENTS of the SECRETARIAT; all HEADS of OFFICES under the several DEPARTMENTS of the SECRETARIAT (except MILITARY DEPARTMENT); the ACCOUNTANT-GENERAL.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES, &c., IN THE EDUCATIONAL DEPARTMENT, FROM THE 16TH MAY TO 15TH JUNE 1880.

17*th May* 1880.—Mr. Bhaskar Yeshvant Jathar, B.A., is appointed substantive *pro tem.* Second Assistant Master, Dharwar High School, *vice* Mr. Indapurkar, transferred to Miraj.

17*th May* 1880.—Mr. S. R. Kirloskar, B.A., substantive *pro tem.* First Assistant Master, Satara High School, is directed to rejoin his permanent appointment in the Elphinstone High School on the first day of the next term. From the same day Mr. K. G. Kelkar, B.A., is appointed First Assistant Master, Ratnagiri

High School (Rs. 100), and substantive *pro tem.*, First Assistant Master, Satara High School, on the same pay.

19th *May* 1880.—Forty-five days' privilege leave is granted to Mr. N. B. Divekar, Assistant Deputy Educational Inspector, Belgaum and Kaladgi.

24th *May* 1880.—One year's leave, without pay, is granted to Mr. S. A. Chhatre, Fifth Assistant Master (Marathi Side), Belgaum High School.

27th *May* 1880.—The unexpired portion (nineteen days) of the two months' privilege leave, granted to Mr. K. G. Dhru, substantive Deputy Educational Inspector, Gohelwar Prant, Kattyawar, is cancelled.

29th *May* 1880.—Mr. Govind Shastri Bapat, is appointed Assistant Sanskrit Teacher, Elphinstone High School.

3rd *June* 1880.—Three months' leave, without pay, is granted to Mr. Nagindas Lakshidas Dalal, Ninth Assistant Master, Surat High School.

3rd *June* 1880.—Mr. H. V. Kelkar, Sixth Assistant Master (Marathi Side), Belgaum High School, is appointed Acting Fifth Assistant Master (Marathi Side), in the same school.

5th *June* 1880.—Mr. Venkatesh K. Mahajan is appointed Acting Sixth Assistant Master (Marathi Side), Belgaum High School, *vice* Mr. Kelkar, promoted.

5th *June* 1880.—Mr. Dwarkanath Raghoba Tarkhadkar is re-appointed Acting First Assistant Master (Marathi Side), Elphinstone High School, from the date he gave over charge at Belgaum.

5th *June* 1880.—One year's extension of leave, without pay, is granted to Mr. Wasudeo Vinayek Karandikar, Fifth Assistant Master, High School, Ahmednagar.

9th *June* 1880.—Seven months' sick leave is granted to Mr. P. F. DeSouza, First Assistant Master, First Grade, Anglo-Vernacular School, Coompta.

9th *June* 1880.—One year's extension of leave is granted to Mr. Asharam Dulichand Sha, Head Master, Mulvi Anglo-Vernacular School.

15th *June* 1880.—Mr. Damodhar Ganesh Kelkar is re-appointed Acting First Assistant Master (Marathi Side), Elphinstone High School.

15th *June* 1880.—An extension of leave (to November 15th, 1880,) without pay, is granted to Mr. M. O. Sheth, Assistant Master, Surat High School.

K. M. CHATFIELD,
Director of Public Instruction.

*Poona, *Office of the Director of Public Instruction*,
18th *June* 1880.

Bombay Educational Record.

No. 8.] AUGUST 1, 1880. [Vol. XVI.

THE MONTH.

The new Rájárám College at Kolhápur, which was opened on the 14th of last June, has now been formally recognised by the University of Bombay as an institution educating up to the standard of the Previous Examination in Arts.

The Staff of the College is as follows: Principal and Professor of English Literature—Mr. C. K. Candy, B.A., LL.M. (Cambridge); Vice-Principal and Professor of Mathematics and Natural Philosophy—Mr. B. B. Vakhárkar, B.A. and Manockji Limji Gold Medallist 1869 (Bombay); Professor of Sanskrit—Mr. S. B. Paranjpe, B.A. (Bombay); Lecturer in Physical Science and *ex-officio* Superintendent of Rajkumars—Mr. B. P. Modak, F.R.A. (Bombay).

The University of Bombay have resolved that the Sir George Le Grand Jacob Scholarship, of the value of Rs. 10 per mensem, and tenable for one year, shall be awarded annually to the candidate who passes the Matriculation Examination with the highest number of marks from among the candidates from Sávantvádi, Kolhápur, Kutch, or Káthiawár.

The Sir George LeGrand Jacob Prize, consisting of books, will be awarded annually for the best essay by a Bombay Graduate or Undergraduate of not more than seven years' standing, on some subject illustrating or relating to the advantages derived by India from British Rule.

Whenever the prize is not awarded, the money will be applied by the Syndicate in such manner as they shall think best fitted for furthering the object of the endowment.

Mr. Henry Bidwell Grigg, B.A., C.S., has been appointed to succeed Col. Macdonald as Director of Public Instruction in Madras.

The following statistics showing the proportion of Boys to Masters in the Chief Public Schools of England, have been furnished directly by the respective school authorities. The schools are arranged in the order of their proportionate teaching power. The last column is defective, several masters having reasonably declined to fill it in, on the ground that any statement of hours must be imperfect and misleading :—

School.	Boys.	Masters wholly engaged.	Masters partially engaged.	Total value in Masters.	Number of Boys to a Master.	Number of hours per week, not counting Sunday or preparation.
Rossall	272	20	...	20	13·6	
Clifton	670	43	...	43	15·6	
Cheltenham	650	41	...	41	15·9	29
Sherborne	290	18	...	18	16·1	33
Wellington College	390	20	6	23	16·9	27
Mill Hill	170	8	7	10	17·0	29-30
Marlborough	574	33	...	33	17·4	25
Harrow	514	29	...	29	17·7	26-30*
Eton	895	48	...	48	18·6	
Shrewsbury	178	9	2	9·1	19·0	
Rugby	421	22	...	22	19·4	24
Leeds	290	13	3	14·5	20·0	26
Univ. College School	660	28	11	33·1	20·0	27
King's College School	630	28	8	31	20·3	26
Haileybury	454	24	...	24	21·4	28
Birmingham	280	12	3	13	21·5	28-30
Merchant Taylors	500	20	3	21·2	23·5	30
Dulwich	615	22	3	25	24·6	32†
Christ's Hospital	680	24	2	25	27·2	26
City of London	660	19	10	23	28·6	28
St. Paul's	No information received.					

Masters partially engaged are reckoned according to the proportion of their hours to the total number of school-hours a week. Extra Masters—for drawing, music, &c.—are not reckoned unless these subjects form part of the regular school studies.

* According to form. † 30 in winter months.

The analysis for the Elphinstone High School would be as follows:—

Elphinstone High School .. 800 | 29 | ... | 29 | 27·6 | 28.

But when the number of extra masters is included in the divisor, the true average size of the classes of a school is not really shown. If the five special Masters in Elphinstone, for example, were omitted, the average size of each class would be 36·3 boys.

A new University was founded last month at Manchester. On the 13th idem a grand *soirée* was to be given in Owen's College, Manchester, by the Chancellor (the Duke of Devonshire) and the Senate in celebration of the granting of the Charter. The new institution is named the Victoria University. Dr. Greenwood has been appointed Vice-Chancellor, and the following gentlemen have been elected representative members of the University Court:—Mr. A. W. Ward, Professor of History in Owen's College; Mr. J. H. Poynting, Professor of Physics in Mason College, Birmingham; Mr. Alfred Hopkinson, Professor of Law in Owen's College; and Mr. William Sammers, M.P.

In reference to our recent remarks on Physical Education in the Primary Schools of this presidency, an Educational Inspector writes:—

"Little has been done at present owing to want of funds; but both in Guzerat and in the Central Division some beginning has been made. In Broach a sum of Rs 400 has been provided out of Local Funds for expenditure on simple apparatus, such as the malkum or climbing pole, clubs, parallel bars, &c. At Sholapur also apparatus is attached to four schools and used under the direction of trained masters. At Kopergaon, in Ahmednagar, the people lately raised a subscription for apparatus, which has probably by this time been supplied.

"Besides this, when in Guzerat, I collected all the old village-games and gave orders to the masters to introduce the most simple of them into schools where space was available. It is curious to see how much many of the games resemble English ones. Prisoner's Base, Baste the Bear, and Rounders are all nearly exactly represented out here. It is hoped that in time under trained masters a regular system of recreation will be established and become part of the school curriculum. But we want money and play-grounds. All that

can be done at present is to encourage the best masters to get the boys together and lead the games themselves."

THERE is no more important part of a child's education than that which teaches him the duty of kindness towards animals. This has been so strongly felt by those who conduct the proceedings of the London Society for the Prevention of Cruelty that they invited the local schools to compete in writing essays on the duty of kindness. No less than 2,500 schools responded to the invitation, and they sent up 10,000 essays. A great number of these were successful in winning prizes, the chief of which were distributed to the fortunate writers last month by the Princess of Wales. The distribution was made with the graciousness that invariably distinguishes Her Royal Highness, and must have greatly enhanced the value of the books to each recipient. At the close of the proceedings the Prince of Wales made a hearty and appropriate speech, which greatly charmed the large and fashionable company which, under the presidency of Lord Aberdare, had assembled in the interest of creatures who cannot speak for themselves.

Can the Bombay Society do nothing in this way? The duty of kindness towards animals is very imperfectly understood by Indian school children. As a rule, they have no pets, nor have they any of those bright picture-books and interesting stories about animals that are the delight of the English nursery. Consequently Indian boys and girls seldom take any of that lively and kindly interest in animals' habits and feelings, which is the best possible preliminary to learning what does and what does not constitute kindness to dumb creatures. A superstitious dread of taking life, which is by no means incompatible with the cruel treatment of animals, and with a callousness to prolonged animal suffering, really does nothing to make the Hindu merciful and considerate towards them. The feeling would seem to be merely prohibitive of the act of killing, and to be isolated from the question of the Hindu's daily treatment of his ox or his horse, to which he is kind, or merciless, from considerations that have nothing to do with this item of belief.

At school of course children learn something of their duty to dumb animals; but there is a large field open to our Society in Bombay, in which they may accomplish good that will be more fruitful than fifty prosecutions before the magistrate. A large number, perhaps the majority, of instances of cruelty to animals arise from

ignorance and thoughtlessness; and apart from punitive measures, the question of their prevention virtually resolves itself into one of teaching young people not to be cruel and how to be kind to the dumb creatures around them. As an instance of the cruelty which ignorance or thoughtlessness may inflict, we have ourselves seen in the streets of Bombay a mere pony painfully dragging along a brougham containing a happy family of well-to-do, respectable people, consisting of two men and a boy on the box, two men behind, and six women and three or four little children inside. On one occasion we saw a vehicle freighted in this way toiling up the slope of the Byculla railway bridge, the axles of the carriage being so bent that it is to this day a mystery why the brougham did not then and there collapse and leave the astonished riders and the much-relieved pony to walk home without it.

THE Superior Council of Public Instruction in France is contemplating the introduction of several reforms in the State lycées. It is to be hoped, in the interest of the youth of France who study in these establishments, that one urgent reform which has been frequently alluded to by the French press will take precedence of all others. M. de Laprade, in a recent work on the subject, calls the education given in the public colleges 'homicidal'; and facts corroborate his accusation. The law protects children employed in manufactories, and prohibits their energies from being overtaxed. In the lycées, growing lads are subjected to an educational *régime* which few grown men could support; an almost unbroken strain of from thirteen to fourteen hours a day is enough to retard physical development and benumb the mental faculties. The *France*, which calls upon heads of families to make a stir in the matter, draws attention to the rules observed in the State colleges—rules which are prejudicial to the health of the most robust, and simply barbarous in the case of scholars whose constitution is weakly. At five o'clock in summer and half an hour later in winter the pupils are awakened by the school drum or gong. Thirty minutes are accorded for the morning toilette, after which the boys go to the class-room, where they work in the strictest silence until half-past seven. Not a moment's healthful recreation is permitted on quitting the dormitory before proceeding to the school-room, nor are the pupils allowed to exchange a word while dressing. At half-past seven comes the breakfast and a few minutes' subsequent freedom from discipline. At eight work is resumed till noon, with

just five minutes' interruption. Then comes the midday meal, after which there is an hour for the playground, unless the children are punished or kept in to take extra lessons by the wish of their parents. The afternoon is divided into an hour's study, two hours' class, thirty minutes' interim for repose, three more consecutive hours' work, closed up by the evening repast, which is eaten in half an hour. So that in a day consisting of fifteen or sixteen hours, according to the season, meals and recreation together occupy but three at most; and upon these three a great many collegians have to draw for private lessons. Moreover, an hour in the evening is devoted by the higher classes to study, otherwise it would be impossible to accomplish all required of them. This daily round of intellectual hard labour is broken by two half-holidays, on Sunday and Thursday, always provided nothing unforeseen retains the pupil at his desk. The minimum of work exacted from a lycée boarder is, at any rate, twelve to thirteen hours a day.

It has now become an accepted fact amongst physiologists that no one is born hopelessly dumb. Dumbness and deafness go together; but children are only dumb because, being congenitally deaf, they have never heard sounds, and their imitative faculty has not, in that particular, been called into play. If that be so, it may be possible to call into action the organs of speech by other agency than that of the imitation of sounds. In England, France, and Germany this question has occupied a great deal of attention, and methods have been found for teaching the dumb to speak. It has been demonstrated beyond doubt that the task is no longer impossible; and pupils can be produced who, after having been deaf mutes for years, have at length been taught to utter sentences expressing their own ideas, and to read from a book.

One of the latest novelties in library appliances is the *American Patent Revolving Book Case*,* an invention by which from 70 to 200 volumes may be arranged within the easy reach of a person engaged in study. The "case" revolves easily on an upright spindle enclosed in a box; around this revolving box the books are arranged on shelves, which revolve with the box. This book case is supplied in several sizes, and is a really handsome piece of furniture, neatly and carefully finished, in hard polished wood. The top is square, and

* *The American Patent Revolving Book Case.* Price 4*l.* 4*s.* and upwards. Trübner & Co.

serves the purpose of a small table. It will be highly approved by every lover of books. The larger and stronger varieties will be found useful in schools and in public libraries and reading rooms.

We commend to the attention of those who teach astronomy in High Schools an article on pages 181-4, entitled "*Hints on the Use of Telescopes.*" Very few masters have as yet, we believe, acquired much dexterity in the use of the telescope, and these *Hints* by an astronomical observer of great practical experience cannot fail to prove most valuable. The writer has kindly promised a second article on the use of star-maps and astronomical books (with a list of useful ones), and on the objects within the reach of a 3-inch object-glass. In the meanwhile we shall be glad of notes on any difficulties experienced in the use of the school telescope. For the benefit of those (and they are legion) who are unhandy with screws, we subjoin the following note: All the screws of a telescope are *right-handed*, that is to say, each piece of the instrument is screwed into its socket by turning it round from *left to right*. But difficulty is so often experienced in getting the screw-piece to catch or engage properly with the internal screw of the socket, especially if the thread be fine, or the circumference of the screw be large, that the following rule should invariably be observed: Place the screw-piece as flat as possible over the socket, and then turn it round gently the *reverse* way (*i.e.* from right to left) until you hear a slight click, or snap somewhat like the sound made in closing the lid of a watch. The two screws have now engaged properly, and the piece may be safely screwed in by turning it from left to right.

The screw-pieces of a telescope, when they have properly caught the socket-screw, always turn *loosely and smoothly*. Whenever, therefore, a screw-piece sticks or works tight before it is screwed 'home,' it should be immediately unscrewed; as the screw threads have in all probability not engaged properly, and will be utterly spoilt if the screw-piece is forced in further.

The death of Mr. Tom Taylor, says a contemporary, takes away a well-known figure in literary circles. For years he had occupied a prominent place in occasional and dramatic literature, and for the last seven had been the editor of *Punch*. We do not know what is the occult law that limits the editorship of our facetious contemporary to a septennial period; but Douglas Jerrold, Mark

Lemon, Shirley Brooks, and now Tom Taylor have averaged that length of service, and no more. And all of them died at nearly the same age. Shirley Brooks was, we believe, fifty-six; but the others, like the last, just lived to turn their threescore. Tom Taylor was a scholar, a first-class in the Classical Tripos at Cambridge, and subsequently a Fellow of Trinity. He was called to the Bar, but did not practise. Having been Professor of the English Language and Literature for two years at the University of London, he became Secretary of the Board of Health. When that office was abolished he received a pension, and then gave himself up to dramatic literature, in which he won great success. He acted, also, as art critic for the *Times*. Altogether he was a prominent man in theatrical and lighter literary coteries. His genial nature, great conversational powers, and high sense of honour and justice, made him a favourite with his friends, amongst whom he will be long and affectionately remembered.

The *St. James's Gazette* says that the calling of a national schoolmaster in Prussia is unpopular:—

From some lately published returns it appears that great difficulty is, and has been for some years past, experienced in obtaining the necessary number of properly qualified instructors in the Prussian national schools. In 1873 the number of appointments in these establishments was 52,046; but, on June 15, 3,616 of them were vacant. Two years later on, in 1875, the number of appointments had been increased to 54,496, but 4,508 were vacant; so that while the number of educational posts had been augmented by 2,450, the number of vacancies had also increased by 892. Returns made in 1877 showed a similar state of things; while at the present moment there are, it is calculated, 4,581 appointments vacant. When it is remembered that, owing to the great depression in trade and commerce in Germany, it has notoriously of late years been extremely difficult for well-educated young men to obtain even the most poorly paid clerkships, or other situations of the kind, it is clear that the calling of national school-master cannot be a popular one in Prussia.

The deepest sea measurement on record, says the *Straits Times*, is credited to Captain Belknap, of the U. S. S. "Tuscarora." In the North Pacific Ocean at latitude 44° 35′ N. and longitude 152° 26′ E. the lead reached the amazing depth of 8,513 metres, or nearly 5¼ miles.

THE first part of Mr. Henry Ward's comparison of Chaucer's *Knight's Tale* with Boccaccio's *Teseide* and Statius's *Thebais* is ready for the press.

WE understand that a reprint of the Fourth Book of Palgrave's *Golden Treasury*, annotated by the Professor of Oriental Languages in Elphinstone College, is in the press.

The Japan Gazette announces that the Japanese Minister of Education has just published his annual report for the year 1877 in two quarto volumes containing 1,725 pages. It is to be hoped that the reports of future years will not grow bigger and more unpunctual as education advances in the islands.

MESSRS. LONGMAN are about to publish a volume of lectures and essays on education by the late Mr. Joseph Payne, formerly professor of the science and art of education at the College of Preceptors.

THE existence of the Cirencester (pronounced Sis'ister) Agricultural College, says a contemporary, ought to be widely known in India, now that Indian students begin to apply themselves to agriculture as a profession; and the following summary of its latest prospectus may prove useful. The object of the Institution is, in the words of its Charter of Incorporation, "to teach the science of agriculture and the various sciences connected therewith, and the practical application thereof in the cultivation of the soil and the rearing and management of stock." It undertakes to teach the science with the practice of agriculture, and so to train students in the most efficient manner for agricultural employment in England or elsewhere. The College is situated near the town of Cirencester, in Gloucestershire, and there are in connection with it a botanic garden, a library, a museum, a veterinary hospital, and workshops. The College farm contains about 500 acres, and the students have free and constant access to all parts of it, receiving all their practical lessons there from the Professor of Agriculture and the Farm Bailiff. The management of the college is committed to a Principal, who regulates the arrangements, and maintains discipline among the students. The lowest age for admission is 18, though a few students are admitted on probation at 16. The course of study lasts two years.

and the charge is £126 per annum. The instruction is at once theoretical and practical. It comprises lectures on agriculture and the allied sciences, as chemistry, botany, geology, mathematics, physics, veterinary surgery, &c., together with book-keeping, land surveying and practical classes. Each student is required to keep a daily journal of all the operations on the farm. The College Diploma, which gives the title of member (M.R.A.C.), is obtainable by those who have passed a satisfactory examination at the close of the two years' course, if they have been entitled to certificates of good conduct from the Principal and of regular attendance at the classes, &c. The College has existed 35 years. Mr. W. R. Robertson, Superintendent of the Government Farm at Sydapet, Madras, graduated there in 1863. Two Indian students who have already availed themselves of the advantages of agricultural study afforded by the College, have expressed a strongly favourable opinion as to the value for their fellow-countrymen of the training there given.

The Journal of the National Indian Association gives the following items of personal intelligence :—

Mr. Pramatha Nath Bose, B.Sc., has been appointed to the post of Third Grade Assistant in the Geological Survey of India. This is the first (?) instance of a direct (non-competitive) appointment of an Indian to the Higher Grades of the Government Service.

Mr. S. Mukerji has received the degree of M.B. in the University of Aberdeen.

Mr. J. K. Ksuga, of Bombay, has been admitted Licentiate of the Royal College of Surgeons, Edinburgh, and of the Society of Apothecaries, London.

Mr. A. Atmaram, B. Sc. (Lond.) of Bombay, has been appointed House Physician to the University College Hospital for six months. At the recent class examinations at University College, Mr. Atmaram obtained the Gold Medal in Medicine and the Fellowes Gold Medal in Clinical Medicine.

Mr. Charles Golab Nath has been admitted at the Inner Temple.

Mr. James Abram Garfield, who has been nominated by the Chicago Convention as a candidate for the Presidency of the United States, was born in November 1831, at a small village called Orange, in the north-eastern part of Cuyahoga County, Ohio, a village at that time of but a few score of inhabitants. His parents were in too humble a

position in life to provide him with anything more than a rudimentary education, and at an early age he commenced the battle of life for himself in the lowly position of a day-labourer. After following this occupation for some time, he became a driver, and then a boatman on the Pennsylvania and Ohio Canal. In 1849, with the object of improving his education, he attended an Academy, and studied with such success that the following winter he undertook the teaching of a district school. Seven years later, he was appointed teacher of languages in the Eclectic Institute at Hiram, Ohio, the following year becoming President of that institution, which office he held till 1861.

THE OXFORD COMMEMORATION.

THE following account of the last Oxford Commemoration will doubtless be interesting to Bombay graduates and under-graduates on account of the amusing contrast which the Oxford ceremony presents to the decorous proceedings annually witnessed at the Bombay University Convocation. We need hardly note that the Oxford undergraduate's traditional license to revel before a public assembly of his most potent, grave, and reverend signiors is confined to this one day in the year, the day before the long vacation :—

Oxford, Wednesday, June 11*th.*

Commemoration, with its customary observances, its concerts, its balls, and its garden parties, is at the moment of writing drawing to its end in the last of its public balls and the last of its concerts. The entertainment of the week has varied from the stern chorus of the *Agamemnon* to the lighter dissipations of college and private balls. New College, Pembroke, Magdalen, University, Queen's are among those colleges which have signalized themselves, by an organ recital, by a concert, or by a dance. The preliminary gaieties which have become the custom during the "eights" do not seem to diminish the attractions of Commemoration week. Good authorities say that there has been no falling off in the throng of visitors to Oxford, and that the Masonic *fête* of this afternoon was as crowded and as well dressed as in former years. The larger proportion of the undergraduate-world has, it is true, disappeared from the scene, and the colleges had before the commencement of the festival began to assume the half-deserted look which they put on when the men have "gone down." But many will be found to agree with Charles Lamb in his appreciation of Oxford in its holiday solitude, and the innumerable vacant rooms do not, after all, seem to check the stated festivities. The Bishop of Oxford preached on Sunday to an overflowing audience at St. Mary's. The promenade beneath the elms of Christ Church Broad Walk that evening was

more thronged than ever, and the pretty but somewhat monotonous spectacle of the procession of boats on Monday evening was witnessed by the usual crowds

The *Creation* was performed with great success by the Philharmonic Society in the Sheldonian Theatre on Monday afternoon. On the following day the usual show of the Horticultural Society was held in the charming gardens of Worcester College, at which, if the floral display, through the earliness of the season and the ill effects of last year's unprecedented rainfall was not quite up to the usual average, there was still enough of beauty to repay the thousands who seized the interval of fine weather which happily favoured the stewards of the show. The Masonic *fête* of this afternoon, for which 1,800 tickets had been issued, was similarly fortunate. The ceremony of the morning was as usual the Encænia, or Commemoration of Founders and Benefactors. By 11 o'clock the galleries of the theatre were thronged with ladies, diversified by occasional undergraduates, while the area was filled by members of Convocation and many visitors, among whom were Captain Evans, hydrographer to the Admiralty; President Elliott, of Harvard College, and other persons of note. Additional room had been provided this year for ladies by a series of raised seats placed round the area—an arrangement which somewhat crowded the Masters, but added greatly to the gracefulness of the spectacle. The hour of waiting was enlivened by Mr. Parratt's performances on the organ, in the intervals of which the undergraduates indulged in their usual demonstrations. Lord Beaconsfield was the favourite: Mr. Parnell's name called forth loud expressions of disapproval; the Master of University received mingled cheers and groans; while the Senior Proctor and one of the Pro-Proctors appeared to be especial objects of aversion. Of course the ladies received repeated ovations under various titles. "Sisters, cousins, and aunts" were noisily cheered, and there was a call of "One more for the aunts," followed by another for "The chaps down below," as the grave Masters of Convocation were irreverently but good-naturedly styled. At last the Vice-Chancellor made his appearance, followed by a string of Doctors of various faculties in their scarlet robes, among which there was an unwonted absence of lawn sleeves. The business of Convocation commenced, as soon as the strains of the National Anthem had died away, by the enumeration of the several celebrities upon whom it was proposed to confer the degree of Doctor of Civil Law. And when each had been put to convocation and passed, the beadles were despatched to usher in the recipients of the degree. In this there was some delay, and a wag caused great merriment by suggesting "They've run away." Their appearance at last was warmly greeted, and the Regius Professor of Civil Law presented each candidate in a Latin speech, composed with his usual felicity. He spoke of Lord Aberdare as "*patrie nostre et humaniores subleuandi studiosus.*" Mr. Fawcett, whose reception was perhaps the

warmest of all, was eulogized for his successes in the lighter pursuits of life, as well as in his political career, in spite of well-known drawbacks; Sir Richard Temple for his successful career in India, and notably in Bengal. Sir Alexander Grant was introduced as the Vice-Chancellor of the University of Edinburgh and the expositor of Aristotle; Sir Astley Cooper Key as a sailor who had won laurels in China and elsewhere from youth upwards; Professor Sylvester as the subtle exponent of the higher mathematics; Dr. Lister as the skilful surgeon, by whose invention the agony of man has been diminished: and Mr. Millais as a colourist of so much truth in copying nature "*ut in tabulis Venetus illud spirare anculeus videatur.*" In the case of several of these distinguished men, the undergraduates illustrated their claims to the honour now conferred upon them by pictorial designs, which they lowered from the upper gallery and which ruthless Pro-Proctors, with somewhat unnecessary energy, seized and carried off in triumph piecemeal. The best of these was reserved for Mr. Millais, in the shape of the figure of a house-painter carrying a pot labelled "Brunswick black;" while Dr. Lister, as he made his appearance, was greeted with a cry of "Now for the operation." But these demonstrations were hardly more than an amusing diversion to the doings of Convocation, which were allowed to take their course without serious interruption or unseemly disturbance. The remainder of the proceedings consisted of the Crewian Oration, which fell this year to the lot of the Professor of Poetry, and the delivery of the several prize compositions by their authors, as follows:—English Essay.—By Frederic Thomas Dalton, B.A., Corpus Christi College. Latin Verse.—By Sidney George Owen, Exhibitioner of Balliol College. Earl Stanhope's Prize.—By Lloyd Charles Sanders, Exhibitioner of Christ Church. Gaisford Greek Verse.—By Earnest Alfred Upcott, Scholar of Balliol College. Latin Essay.—By Walter Scott, B.A., Fellow of Merton College. Sir Roger Newdigate's Prize.—By James Rennel Rodd, Balliol College.

The Newdigate prize poem, the subject of which was "Sir Walter Raleigh," was delivered with more than usual clearness and neatness of elocution, and was listened to throughout with attention. This brought the Commemoration of 1880 to a close, and all the world dispersed to lunch in college halls and to spend the afternoon under the plane-trees and within the old city-walls of the gardens of New College, in which this year the Masonic *fête* was given. The festivities of the week end to-night with a public ball, and a concert at Magdalen College; and to-morrow the Long Vacation begins its long and solitary reign.

HINTS ON THE USE OF TELESCOPES.

I have been asked to put together these hints, as many schools are furnished with telescopes, and in some cases there may be difficulty in using them for want of a little practical knowledge.

In the present paper I will begin quite at the beginning, and if any readers find nothing but what is familiar to them from experience or reading, they will pardon the simple language and matter for the sake of those who may not be equally informed.

Let us take the case of a telescope received by a master anxious to use it, but with no previous experience of such instruments. Here I would say, in Webbe's words, "do not use any part of a telescope or stand roughly, or expose it to any strain or blow. It is a delicate instrument, and well deserves careful preservation." To this I would add be cautious in handling all screws, make sure that the male and female screws engage properly, and when a screw is 'home,' do not attempt to turn it further. Thousands of screws are ruined by neglect of these simple cautions. Having taken the telescope from its box and set it up on its stand, examine the eye-piece and see whether the dark-glass cap for solar use is attached. If it is, unscrew and remove it; take off the brass cap from the object glass. [N.B.—Always keep the brass cap on when the telescope is not being used.] Turn the telescope on any large object, a tree or a house, say, one hundred yards off. This can be easily done by looking along the top of the instrument and pointing it like a gun. Keeping the telescope directed as above, pull the tube carrying the eye-piece as far as it will come without falling out; apply your eye to the eye-piece and slowly push in the tube until you begin to see a dim appearance of something besides the mere disc of light you saw at first. Now move the tube very slowly inwards, and you will see your objects, house or tree, or whatever it was. A little movement to and fro will give some position of the tube where you see most distinctly. With a pencil mark the sliding tube to show this position. All this is very simple, and yet the usual difficulty experienced by those who try to use a telescope for the first time is that they cannot manage to see anything at all. This is sometimes because they do not get the instrument into focus or anything near it; sometimes because they do not look truly into the eye-piece but at some part of the brass mounting round the lens, to which, however, the observer's eye must be applied within about half an inch.

If your telescope has a focussing screw for fine adjustment, you will find that there are two tubes moving in the main body of the telescope, which is attached to the stand. One of these tubes slides freely, and can be turned on its axis. Call this tube A. The other cannot be so turned, and is moved by a brass milled head, which being turned the tube is moved in or out for focussing. Call this tube B, and remember that it must be moved by turning the milled head and never by a direct push or pull. To avoid any risk of this, you should begin focussing by tube A alone with tube B set in as far as it will go. Having thus found the proper position of A, to give sharp definition push A in about an inch, and then slowly turn out B until you get the best position for focus, *i. e.*, the

most distinct vision. If your instrument has a 'finder,' *i. e.*, a small telescope attached to the larger one, you can point the finder at some distant object, selecting something small and yet distinct, and bring this object into the centre of the field of view in the finder. Look into the larger telescope. The object should be in the centre of the field. If it is not so, bring it to the centre of the field by slowly moving the telescope. Now look again in the finder, and see wherabouts in the field the object appears. Repeat the comparison on several different objects, and if there is no looseness or shake in the attachment of the finder to the telescope, you will always see that objects which are central in the larger telescope are seen in the same position of the finder's field. Note this position, and to it bring every object you wish to get into the field of view of the larger instrument. This is far better than attempting to bring the finder into correct adjustment by tampering with the screws. Hitherto the eye-piece has been mentioned as there was only one, but you will have perhaps two or three eye-pieces, and observe that one is longer than the others. If so, that is the terrestrial eye-piece, and will show you objects the right way up, while the other and shorter eye-pieces may show objects upside down, and if so, are celestial eye-pieces. Begin with the terrestrial eye-piece as less confusing, and when you have some dexterity in finding distant objects and in getting the focus sharp, you may try a celestial or inverting eye-piece, for which you will find that the tube must be pushed in further, and that you have a smaller field, that is, you have a field less in extent, while what you do see will be much magnified. Having tried several different objects and acquired some readiness in finding and focussing, you may turn from earth to heaven, and begin to use your telescope as an astronomical instrument. But for many practical reasons you will be wise to acquire some experience of your telescope on terrestrial objects before you attempt anything in the heavens. However, let us now begin upon the moon as the easiest object to find. See that your stand is as firm as its construction allows. If it is a common tripod stand, set it on as solid a base as you can get; a small pillar of stone or brick is the best, a barrel filled with earth or sand is good; a rickety table on uneven ground is about the worst base. Now set your telescope to the focus you have already found and marked, and since each eye-piece has its own focal length, see that you are setting to the focus of the eyepiece you are using. Turn the telescope to the moon, bringing the centre of the moon to that part of the field of view in the finder which you have noted as corresponding to the centre of the field of the larger instrument: a very slight focussing adjustment will give you sharp definition in the telescope. You will now experience your first difficulty in observing heavenly bodies—a difficulty which has led to many ingenious devices in mechanics and entails vast labour and cost in large telescopes. The moon will not remain in sight, but as you are looking, passes away, and this the more quickly as you

increase the magnifying power of your eye-piece. Indeed, you will always do well to use low powers as a rule, and never to put on an eye-piece of higher power unless you are absolutely compelled to do so. Beginners like to use the highest powers they can put on, but experience shews that this is a great mistake, as every imperfection in the instrument or the atmosphere is increased with increased magnifying power, and you will often find that what you see comfortably and distinctly with a low power, you cannot see at all with a higher. As it is hard to persuade beginners of this, let me suggest a very simple experiment. Take two books, one in small and one in large print. Place the small-print book on the table and read a few lines, then pass the large-print book across before your eyes, and see which book is easier to read. Further let the small print be in a good light, and the large in a shady corner. So do not be disappointed if you find at first that you can make very little out of your higher power eye-pieces, and I would advise you to confine yourself for some time to the exclusive use of your lowest power and to a very limited number of objects. You will find as you get to know the look of an object, that you will see much more, and that what you could hardly make out at all on one night, will be quite evident on another occasion. Eye and hand become trained by practice, and the state of the atmosphere varies so much that what is invisible one day, is clear on another. I have sometimes seen the shadows of the satellites as sharp and distinct on Jupiter's disc as black wafers on white paper. At other times, with the same instrument and eye-piece, I have hardly been able to see these shadows at all, though I knew precisely when to look and what to expect.

I began with a general caution against rough usage. I will end with another. Beware of wiping your object glass or eye-piece. The surface of a lens is often scratched and ruined by minute invisible grit. Chambers says—Never meddle with lenses except in cases of most pressing and obvious necessity. A camel's hair brush will be found of use for removing coarse particles of dust from lenses; then may follow the cautious use of a piece of very fine and clean chamois leather, or of soft silk or fine cambric; but everything used for wiping or rubbing lenses must be perfectly clean, and should be kept in a wide-mouthed bottle corked up. All wiping and cleaning must be done gently.

R. G. O.

CORRESPONDENCE ADDRESSED TO THE EDITOR.

To the Editor of the Bombay Educational Record.

SIR,—The April number of the *Educational Record* contains a remarkable note by the Principal of Deccan College on the teaching of Etymology in the Poona High School. The mode in which that

subject is taught at Poona is strongly condemned, and it is observed that "much time is worse than wasted in learning by rote manuals of etymology."

As I believe that the evil indicated in the Principal's note is general, and not special, and that Sanskrit and Natural Science excepted, for which there is special provision made, the whole school-course, Etymology included, is gone through in a manner at once unscientific and wasteful, allow me to say a few words on the subject.

In most High Schools it is so arranged, that every class has a separate teacher who is responsible for all subjects except those which are specially provided for. All of us, therefore, from the first to the last Assistant Master, have to attend to all the studies of the school-course, the standard of course varying in each case, except Sanskrit and Physical Science, and have every day to give four or five different lessons to our classes. A page or two of prose, 20 to 40 lines of poetry, a chapter of History, one or two sections of Geography, a lesson from Euclid &c. This is our usual daily home-work, without which we cannot take our classes at school. Add to this the almost daily correction of Exercises and Notes, upon which much stress is laid, and justly. We have thus little or no time left to devote to any special subject.

Three evils, I think, may be traced to this arrangement which makes each master responsible for almost all the studies of his class. They are,—(1) that teaching is done in an unsystematic and faulty manner; (2) that progression is by irregular stages and involves a needless waste of time and energy; and (3) that the efficiency of the teachers is seriously affected.

The evil of faulty teaching is the most serious of these. I will, to illustrate my meaning, take History and Geometry as being good test-subjects:—

(a)—As everyone knows who knows our schools, in teaching History we confine our attention to our text-books. We do not travel beyond them to give to our classes any broad views of the subject. We go on chapter by chapter and exact of our pupils as much of the matter and even the language of the text-books as possible. The study may almost be said to be restricted to dates, and dry, meagre, and broken accounts of reigns, administrations, wars and treaties. The boys wade through it with us, with the aid of chronological and biographical sketches, which, by the way, are worse than useless; but, as might be expected, they evince no intelligent interest in the events which their text-books recount, more especially as the meaning of them is not explained by references to contemporary history. What is worse, we do not even attempt to make them grasp the two cardinal ideas of historical study. I mean the continuity of national life and the development of events. Historical induction is of course out of the question at so early a stage; but if

the study of men and their surroundings should precede that of events in which they are the principal actors, History would become a fine *deductive* study for our boys. As taught, however, at present, it only proves work for the memory of the hardest kind conceivable, without much improving the understanding.

(*b*)—If History is so badly taught in our High Schools, Geometry fares worse. The books are no doubt regularly learnt, and some deductions also are done. Not a single syllable of the Enunciations, nor a single step of the Proofs, as given in the text-book is omitted. The whole work is done indeed with a degree of exactness worthy of a better result. But seldom do we take a proposition and show how it is deduced from, and suggested by the propositions that go before; much less do we modify its figure and explain the several deductions which such modification suggests. Thus does a subject, which is the finest in the whole range of deductive study, become in our unskilful hands, uninteresting memory-work instead of a very pleasant and useful exercise for the mind.

As regards the other subjects of the course I do not believe that they are taught in any way better. Most of them require a special acquaintance, without which they cannot be properly taught; but for such special study the masters have no time to spare under the present arrangements. Those who wish to be convinced of this evil of defective teaching have only to visit our class-rooms and see for themselves how we actually teach. I feel persuaded, the whole machine works at the maximum of pressure with the minimum of good result.

The second evil I have referred to, is not as apparent as the first but it is not the less real. At every annual transference the boys not only change classes but masters also. As different masters teach differently, the boys are every year set to work on new lines. Thus the continuity of the course is broken. There occur, so to speak, periodical breaks of gauge and our High School-classes move on new rails every year. These breaks cause considerable waste of time and energy.

The third evil traceable to the present arrangements has not yet attracted attention. It is, however, silently growing apace. Having no time, and no motive to study any one subject specially, the masters keep fresh only the studies they are in charge of. They aim no higher; and gradually as year after year passes by, their efficiency is more and more impaired. They become less and less fit for taking up higher studies. The deterioration is marked even now, and may, I fear, in course of time, become more decided still.

These are the chief evils to which I would request the earnest attention of those who take any interest in the working of the Educational Department.

As a remedy for these evils I would venture to propose that the arrangement which produces them should be done away with, and that teaching power in the High Schools should be redistributed on

a better principle. I would suggest, that all the High School Masters should be grouped under three divisions, corresponding to the three heads of the course still unprovided for; thus—

(1)	Teachers of	English	Each group should consist of two classes, the Juniors and Seniors, each class being graded according to pay.
(2)	,,	History & Geography	
(3)	,,	Mathematics.	

Our High School staffs are not very strong; but even the weakest is composed of seven teachers. Of these, two masters—one senior and one junior—should be selected for each of the three subjects; the 7th master working as a special master for translations. Appointments and changes might be regulated according to the requirements of the schools in respect of each subject.

Such an arrangement would, in my humble opinion, be a vast improvement on the present—

(*a*)—It would give us special teachers for the subjects unprovided for. The classes once formed, the masters would be trained up of themselves. They would have the strongest motive and the greatest facilities for special study.

(*b*)—It would, in the second place, improve the quality of teaching generally. It would render it more scientific and effective. Special teachers when once trained up, would undoubtedly do their work far better than we do now; for the more specialized the sphere the more skilful the workman.

(*c*)—Thirdly, it would prevent breaks in the course. Under specially qualified teachers, the subjects would be gone through by easy, natural stages, and teaching would become what it ought to be, —really progressive.

(*d*)—Lastly, it would substitute subject-responsibility for class-responsibility, which would be more effective, and enable the schools to show better results than now.

Such are some of the recommendations of the arrangement proposed. It would not necessitate any addition to our teaching power, as we have already a sufficient number of masters to form the groups proposed; nor would it involve any disturbance of the present arrangements. The supply no doubt would, at the beginning, be unequal, but time would equalize and adjust it to the demand.

There seems also no ground for fear that such an arrangement would fail. It succeeds in Colleges; it succeeds even in our High Schools as regards Sanskrit. I have no doubt that if allowed a fair trial, it would succeed eminently in respect of other subjects also. Eventually it might even lead to a considerable shortening of the school-course; but this time alone could show.

Thus it would appear that the arrangement I have ventured to suggest, while it would work a beneficial revolution in the whole

system of teaching in our schools, is not open to any serious practical objections.

Here I close, expressing a confident hope that the whole subject, being of such vital importance, will be taken up by those best qualified to deal with it.

Yours obediently,

A MASTER.

*** Our Correspondent's suggestion is a very good one, and has been tried with success in some Schools in the Presidency. But the distribution of work in a School Staff has been and always should be left to the discretion of the Head Master. Our Correspondent takes too dismal a view of the situation as to the teaching of History and Geometry. We know several Schools in which these two subjects are taught on the better method he describes.—ED. B. E. R.

NOTICES TO CORRESPONDENTS.

"W" has not given his name and address.

An Elphinstonian doubts the correctness of the absolute rule laid down by most grammarians that the dual preposition '*between*' is used only with two objects or sets of objects.

The rule is a safe one for those whose mother-tongue is not English; but the grammarians are (as frequently) too dogmatic. Instances of the preposition in a plural relation do occur, frequently in old, and occasionally in modern writers; *e. g.* in modern writers—

Three demons that divide its realms *between them*.—'Young's *Night Thoughts*—1755.'

I'll leave honest Rowley to mediate *between* you (all).—'*School for Scandal*, Act v., sc. ii.'

Hayreddin then turned round to the countess Hameline, who had sunk down on the ground *between shame, fear, and disappointment*.—'*Quentin Durward*, ch. 20.'

While he was wavering *between* [more than two] equally hopeless, the king's forces came in sight.—*Macaulay*.

In all of these passages, except the first, '*among*' would be unusual, apparently because the form of the whole expression is so much more frequently associated with the dual relation that it will not take '*among*' without a sense of harshness being produced—a consideration that is much more weighty than the etymological impropriety of using '*between*.' On the other hand, '*among*' is occasionally found trenching upon the dual ground of '*between*,' when, besides the notion of duality, that of plurality is involved; *e.g.*—

The discord which befel, and war in Heaven
Among the angelic powers.

Paradise Lost, 6·897-8.

Come, I charge you both go with me; for the man is dead that you and *Pistol* beat *amongst* you.—*2 Hen.* iv. Act v., sc. iv.

GOVERNMENT CENTRAL BOOK DEPÔT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th October to 15th November 1879.

New works published by the Department.

HINDUSTANI.

	Rs.	a.	p.
Ghulam Muhammad Munshi, an Elementary Geography, Part I.	0	8	0

New Editions published.

MARATHI.

Deokulé—Mental Arithmetic, 2nd Edition	0	1	9
Dadoba—Laghu Vyakaran, 11th Edition	0	1	3

Fresh Supply received from England.

ENGLISH.

Gray's Descriptive and Surgical Anatomy	14	0	0
Kirk's Hand-book of Physiology	7	0	0
Roberts's Practice of Medicine, 2 vols.	11	0	0
Erichsen's Science and Art of Surgery, 2 vols.	18	0	0
Fowne's Manual of Chemistry	7	8	0
Atthill's Diseases of Women	3	0	0
Macnamara's Diseases of the Eye	6	4	0
Pott's Euclid, Books I.—IV.	1	8	0
Chambers's Moral Class Book	0	12	0
Ogilvie's English Dictionary	3	12	0
Nelson's Brief History of England	0	4	8
Colenso's Arithmetic	2	4	0
Graham's English Synonyms	3	0	0
Warne's Shilling Atlas	0	8	0

(Signed) N. V. BAPAT,
Curator.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th June to 15th July 1880.

New Books and Maps published by the Department.

GUJARATI.

	Rs.	a.	p.
Manasudhâraka Suchanâ, or Hints on Mental Improvement; by Manishankar Parbharam	0	5	6

KANARESE.

Map of North Kanara	2	4	0

N. V. BAPAT,
Curator

DEPARTMENTAL NOTICES.

Book Sanctioned.

NOTIFICATION.

Ghulam Mahammad Munshi's Hindustani Geography in two Parts, price 8 annas per Part, is sanctioned for use in Hindustani schools.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
19th July 1880.

Government Teachers' Examination.

No. OF 1880-81.

Poona, Office of the Educational Inspector, C. D.,
23rd July 1880.

MEMORANDUM.

The Educational Inspector, Central Division, gives notice that an Examination of Matriculated Candidates for Teacherships in Government High and Anglo-Vernacular Schools will be held at Poona on the 23rd day of August 1880.

2. The Examination is voluntary, and is open to all persons who have matriculated.

3. Candidates who present themselves at this Examination and obtain Certificates will be selected for appointments in preference to unmatriculated persons.

4. Persons already holding appointments as Teachers in High or Anglo-Vernacular Schools are not compelled to appear at this Examination; but by appearing and obtaining a Certificate they establish a claim to promotion over uncertificated teachers.

5. The subjects of Examination will be—

(*a*) Written translation from English into Marâthi and Marâthi into English. Also, if the candidate desire it, written translation from English into Latin or Sanskrit, and from Latin or Sanskrit into English.

(*b*) *Viva voce* translation from and into the same.

(*c*) *Viva voce* Examination in Elementary History and Geography and Elementary Astronomy (Matriculation Standard).

(*d*) A paper in Arithmetic, and the first two books of Euclid.

(*e*) A paper and *viva voce* Examination in "Fowler's Discipline and Instruction," which is the text book on the Art of Teaching appointed for this Examination.

6. The Examination will be held by a Committee consisting of the Educational Inspector, Central Division, as President, the Head Master, Poona High School, and the Professor of Sanskrit, Deccan College.

7. Certificates will be given only to those candidates who get at least 30 per cent. of the marks in each subject and 40 per cent. of the total number of marks for all subjects. The certificate will indicate the relative merit of the candidate by a number showing his place in the list of successful candidates. A register, kept in the office of the Director of Public Instruction and Educational Inspector, will show the marks obtained by each candidate in each subject, and will be used as a guide in making appointments.

8. Candidates who intend to offer themselves for Examination in August 1880 are requested to send their names to the Educational Inspector, Central Division, on or before July 31st, and to state whether they desire to be examined in Sanskrit or Latin.

E. GILES,
Acting Educational Inspector, C. D.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM THE 16th JUNE TO 15th JULY 1880.

16*th June* 1880.—Mr. Nanabhai Ardesir Mus, L.C.E., is appointed Acting Assistant Professor of Chemistry and Geology, *vice* Mr. Page.

16*th June* 1880.—Mr. C. W. Dudley, L.C.E., is appointed Acting Teacher of the Forest Class, *vice* Mr. Mus.

16*th June* 1880.—Mr. Rudrapa Virbasapa is appointed Acting Assistant Professor of Mathematics, *vice* Mr. B. B. Sane.

17*th June* 1880.—A year's leave of absence without pay is granted to Mr. Krishnaji Parusharam Gadgil, substantive *pro tem.* 4th Assistant Master, Poona High School.

19*th June* 1880.—Mr. Annaji Ramchandra Atre, Fifth Assistant Master, Poona High School, is appointed substantive *pro tem.* Fourth Assistant Master in the same school, *vice* Mr. Gadgil, on leave.

19th *June* 1880.—Six months' leave without pay is granted to Mr. S. S. Datar, Sanskrit Teacher, Byramji J. High School, Tanna.

19th *June* 1880.—An extension of three months' sick leave is granted to Mr. Ramakant K. Bhende, Acting First Assistant Master, High School, Karachi.

25th *June* 1880.—Mr. Moro Waman Kirtane, B.A., First Assistant Master, Kalyan English School, is appointed substantive *pro tem.* Fifth Assistant Master, Poona High School, *vice* Mr. Aare, promoted.

29th *June* 1880.—Six months' leave on private affairs is granted to Mr. M. D. Vohora, First Assistant Master, Branch School No. II., Ahmedabad.

30th *June* 1880.—Mr. Narayen Sadashiv Kulkarni is appointed Sanskrit Teacher in the Ahmednagar High School on probation.

2nd *July* 1880.—Mr. B. S. Sabasrabudhe is permitted to resign his place as Sixth Assistant Master, Satara High School.

10th *July* 1880.—Mr. Vaman Shivram Apte, M.A., is appointed substantive *pro tem.* First Assistant Master, First Grade Anglo-Vernacular School, Kalyan.

12th *July* 1880.—Mr. Atmaram Ganesh Patwardhan, Head Master Vernacular School, Dhulia, No. I., is appointed Head Master Vernacular School, Dharangaon, No. I.

13th *July* 1880.—Mr. Balaji Gungadhar Mendhale, Head Master, Dharangaon Vernacular School, No. I., is appointed Head Master, Shahada Vernacular School.

13th *July* 1880.—Mr. Shridhar Vasudeo Bhide, Head Master, Raver Vernacular School, is appointed Head Master, Yawal Vernacular School, No. I.

13th *July* 1880.—Mr. Balkrishna Bhasker Bhide, Head Master, Vernacular School, Shahada, is appointed Head Master, Vernacular School, Dhulia, No. I.

14th *July* 1880.—Eight days' sick leave is granted to Mr. Hari Ganesh Godbole, Third Assistant Master, Ratnagiri High School.

15th *July* 1880.—Mr. V. B. Parchure, B.A., is confirmed as Sixteenth Assistant Master in the Poona High School.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
19th *July* 1880.

Bombay Educational Record.

No. 9.] SEPTEMBER 1, 1880. [Vol. XVI.

THE MONTH.

Dr. Bühler, the Educational Inspector of the Northern Division, is about to retire from the Department on account of ill-health. It would be superfluous to speak here of the distinguished services of this officer both as an educationist and as an oriental scholar. For years past, in Europe and America, as well as in India, he has been acknowledged to be one of the most eminent Sanskritists of the age. The Educational Department will sustain a severe loss by his retirement.

The Bengal Government have issued the following resolution :—

With the view of promoting agricultural improvement in Bengal and encouraging the study of scientific agriculture, the Lieutenant-Governor has determined to create annually two special scholarships of £200 a year, each to be held by science graduates of the Calcutta University at the Royal Agricultural College, Cirencester. The first two scholarships will be tenable for two and a-half years from the commencement of the January Term in 1881. Only natives of Bengal, Behar, or Orissa, who have passed the B. A. examination on the Physical side, will be eligible. An allowance of Rs. 1,000 will be made to defray the expenses of each scholarship-holder in proceeding to England, and a similar allowance will be made for the return journey on the completion of the course. Applications will be received by the Director of Public Instruction, and will be submitted to Government with a report from a Committee consisting of the following gentlemen :—

The Director of Public Instruction.
Mr. C. H. Tawney.
Babu Bhudev Mukerji, C.I.E.
Mr. A. W. Garrett.

The public cannot be too thankful to the *Statesman*, says *Brahmo Public Opinion* for attacking the hole-and-corner system which prevails in the Calcutta University in conducting its operations. The Syndicate, the Faculties and the Senate choose always to avoid the light of the day, and the wholesome influences of public criticism of the measures proposed and passed by them are thus lost to them. The well-being of the rising generations of our countrymen depends solely upon our Universities, and it is therefore absolutely necessary that the deliberations of such an important body as the Executive of the Calcutta University should be widely known and subjected to public criticism. We hope the authorities will see the reasonableness of this proposition and make up their minds to mend the matter.

There are 92 State schools in Gwalior, with an aggregate of 2,777 pupils. About one person in a thousand of the population receives some education from the State. These schools are distributed over 17 districts, and cost in all Rs. 25,092 per annum, or on an average less than Rs. 24 a month.

A number of Singhalese young men have been engaged in Galle to go to Queensland for five years as shepherds, for one pound a month, free clothing, board and lodging, and passage both ways.

The *Lucknow Witness* says:—The *Anglo-Indian Guardian* objects to the term Eurasian. Why does it not adopt Euro-Indian? That is exact as to sense, and euphonious as to sound.

But the *Lucknow Witness* is not very exact in his etymology. We would ask—Why not adopt the term Indo-European?

Our notions of German Universities, says a contemporary, are mostly drawn from the learned professors, who, in almost every walk of literature and science, have exhaustive treatises, suggestive of laborious days and the midnight oil. But there is another phase of German student life, better known, perhaps, to an earlier generation, of which a strange glimpse was afforded us last week by some correspondence in the *Times*. An English undergraduate described, in a letter to his father, a series of duels of which he had been witness between students of one of the Universities, which read almost like

a page out of an early chronicle. It appears as though that ancient, but barbarous, custom has survived intact among these lads in German Universities, when it has been almost abolished, among the adult population, by the advancing wave of civilisation. It is hard to believe that duelling was an inexorable institution in England less than half a century ago. But, happily, even then it was sternly prohibited to those *in statu pupillari*. In Germany, however, the fighting traditions among University lads are still upheld in all their grotesque and barbarous features. Care is taken that, though the encounter is with swords, no risk shall be run to life or limb. The body of the combatant is swathed so that the head and arms and body shall be secure. The only point open to attack is the visage. And the description given by the Cambridge undergraduate of the hacking and hewing with blunt swords which the combatants inflict on one another's faces, constantly disfiguring them for life, is positively sickening. Indeed, a well seamed and marked face serves as a certificate of early prowess, which commands a certain homage in a certain section of society. But surely it is time that the authorities intervened to protect young men from the life-long consequences of early folly. We cannot imagine a German statesman feeling proud of the picture of student-duelling which is drawn by the graphic pen of our travelling undergraduate. It is altogether an anachronism. And, perhaps, no blow could be struck at the brutal system which overrides student life in Germany more likely to prove effective than the exposure of it, in all its hideous details, in the columns of a paper which has a world-wide circulation. University duelling is all the more monstrous in a country which boasts that it has long led the van of educational progress.

The result of the examination by the Oxford and Cambridge Schools Examination Board in December 1879, and June and July 1880, is now published. Seven hundred and eight students were examined in Latin, Greek, French, German, elementary and additional Mathematics, Scripture knowledge, English history, mechanical and chemical divisions of Natural Philosophy, botany, physical geography and geology. The schools for which boys were examined included Eton, Harrow, Christ's Hospital, Rossall, Clifton, Marlborough, Radley, Sherborne, Repton, King's College, Wellington, Dulwich, Cheltenham, Merchant Taylors', and others.

Among the notices of motion for early next Session is the following by Lord George Hamilton:—"To call attention to the action of the governors of the United Westminster (Endowed) Schools in continuing to retain Mr. Goffin as the Headmaster of those schools after a committee of this House, of which the chairman of the governors was a member, had reported 'that Mr. Goffin has carried on a course of fraud in a manner and to an extent which must have greatly lowered the tone of morality among a large body of scholars and pupils,' and further recorded 'their emphatic opinion that fraud, thus reduced to a system, and almost elevated to the dignity of an art, requires the immediate attention of the Education Department with a view to the adoption of such further precautions as will prevent a repetition of these disgraceful practices;' and to move a resolution."

In May, 1878, a project was originated for the purpose of establishing a university college in Liverpool. The scheme has advanced satisfactorily since then, and at a meeting held last week in Liverpool it was stated that several of the leading residents had promised contributions of 10,000*l.* each for the endowment of different chairs. Lord Derby has also promised a similar sum, the result being that 86,500*l.* is already ensured. The college is to be upon the broadest basis, being non-sectarian, and offering no disabilities of any kind to intending students.

Literary ladies, says the *Academy*, are rapidly coming to the front in the United States. Mrs. Kate A. Sanborn has been appointed to the chair of English Literature in Smith College at Northampton, Massachusetts.

A London contemporary writes:—

The noble foundation of Christ's Hospital is about to be reconstructed on a new scheme, and to be removed to a new site. Neasden Park, near Willesden, a healthy and very picturesque spot, occupying high ground, about half a mile from the Kingsbury Station of the new Harrow extension of the Metropolitan Railway. It is time that it followed the example of the Charterhouse, and carried its 800 boys into the country, where purer air and wider run will do much to invigorate and develop both body and mind. The school is quite

out of place in Newgate Street, where its premises are of almost fabulous value, and will yield quite enough to erect noble buildings a few miles from town. Founded by Edward VI., it has done a noble work, and reared a succession of eminent men. But this is the nineteenth century; and it would be strange if an ancient, rich, and royal foundation did not acknowledge the law of progress, and improve upon the old lines. It speaks well for the discipline of this school and the character of its boys that, though situated in the very heart of the City, with temptation and peril around him on every side, a "Blue" never gets into a scrape, or does anything to compromise the high credit of his school. He has a character to sustain, and he does sustain it. It is said that, under the new scheme, the benefits of the school will be extended to a much larger number of boys, and the administration of its increasing property be greatly improved.

THE *School Guardian* makes the following comments on a speech delivered last month in London by Mr. Fawcett:—

The Postmaster General, in his speech at the concert given by the pupils of the Normal College for the Blind, drew freely on his personal experience, thus avoiding platitudes, and adding a sterling contribution to *excelsia scholastica*. Every man's opinions about education, says Richter, would be valuable, if only he wrote what he did not copy. A diary about an ordinary child would be much more valuable than a book about children by an ordinary writer. Mr. Fawcett is no "ordinary child," and the facts he tells us about himself carry all the more weight. Adverting to the general neglect on the part of physiologists and schoolmasters of the inseparable connection between the physical state of the body and the successful working of the mind, he tells us that, if he has seven hours to do a given bit of work, he deliberately spends part of it in riding, rowing, or some other strong exercise. As a proof of the power of graphic description, he says, that often, after hearing from a friend some landscape portrayed, he can, in after years recall the scene so vividly, that he has, while speaking about it, to check himself and think whether he had really seen it or only heard of it. Few schoolboys, we fear, would ever be perplexed with a similar doubt, or dream that they had seen Rome, or (like George IV.) been present at the battle of Waterloo. Yet any schoolmaster might produce

the illusion, if only he saw the things himself and treated his pupils as though they were blind.

The magnificent Cathedral at Cologne was completed on the 14th ultimo, when the last stones were placed on the summits of the towers. The edifice has been 632 years under construction. In its period of growth, says a London contemporary, it exceeds all other European minsters. None can boast like it a youth of six centuries. The city which it glorifies has been celebrated for its piety, and something more, in the past; it is celebrated for the same qualities still. To strangers and visitors Cologne is identified with ecclesiastical dominion and ecclesiastical magnificence. Cologne is to them the city of mitred electors and of princes of the Church; Cologne Cathedral is a visible sign of the pomp and wealth and undying memory of Romish Churchmen. In reality, the last stones set upon the two towers on Saturday crowned the enterprise, not so much of the Church of Rome, or the Church of Cologne, as of a municipality founded by the Cæsars.

A curious and astounding calculation, says the *London Medical Record*, has been made by an American physician, Dr. Farrar. He estimates that not less than half a ton of pure gold, worth half a million of dollars, is annually packed into people's teeth in the United States. At this rate, all the gold in circulation will be buried in the earth in 300 years. He also calculates that three millions of artificial teeth are annually supplied, and that only one person in eight has sound teeth.

The proposed tunnel through Mont Blanc is being seriously talked about in France, and the French Government have commissioned M. de Lapinaye to draw up a report on the scheme. The estimated cost is 3,600,000*l.*, and the extreme length would be about eight miles.

A submarine tunnel between Dover and Calais also is a work which seems likely to be accomplished some day. It has been proved by soundings that the bed of the Channel between these two ports is grey chalk, lying in layers upon a slate foundation. If there are large irregularities and cracks in the layers the tunnel cannot be made. So far the test-works show that this difficulty would not be met with.

THE Madras Journal of Education publishes the following *Memoria Technica*. (Omitting the Historical Plays, "*quae vorsa dicere non est*"):—

Cymbeline, Tempest, Much Ado, Verona,
Merry Wives, Twelfth Night, As you Like it, Errors,
Shrew Taming, Night's Dream, Measure, Andronicus,
Timon of Athens.
Winter's Tale, Merchant, Troilus, Lear, Hamlet,
Love's Labour, All's Well, Pericles, Othello,
Romeo, Macbeth, Cleopatra, Cesar,
Coriolanus.

THE returns of emigration from the Mersey during last April, just made up, show that there sailed 45 ships to the United States with 25,127 passengers; to British North America, 13 with 3,907; to Australia, 2 with 58; to South America, 6 with 107; to the East Indies, 5 with 35; to the West Indies, 1 with 5; to China, 2 with 4; and to the West Coast of Africa, 4 with 49. The total number of emigrants was 29,292, of whom 7,926 were English, 6,330 Irish, 276 Scotch, and the remainder foreigners. The figures show a decrease of 199 as against those of April last, but compared with the month of May of last year there is the enormous increase of 12,934.

A PARLIAMENTARY return has just been issued giving particulars as to changes effected in the National Debt between April 1, 1875, and March 31, 1880. The return is divided into three sections. The first shows the amount of debt paid off by the Sinking Fund established in 1875 in each of the five years comprised in the return. The total amount so paid off during the whole period is £2,423,212 6s. of funded and £650,000 of unfunded debt. From the second section of the return it appears that the total amount of National Debt was on April 1, 1875, £775,343,686, and on March 31, 1880, £776,088,567, the increase during the five years being £739,881. The third section shows the total amount of the National Debt, exclusive of the capital value of Terminable Annuities, at the two dates last mentioned. The figures are:—On April 1, 1875, £720,037,015; on March 31, 1880, £737,821,259—increase, £17,784,244.

The Mussulman University of the Mosque de l'Azar, at Cairo, possesses at the present time no fewer than twelve thousand scholars—and in this respect as in many others stands without a rival in the East. The Khedive ardently desires the extension of education, and at this moment, quite close to the Palace of Abdin, can be seen a superb school in course of construction. This will be finished in October next. The school will be a model one, and is destined for the upper classes. The building is adapted to receive 300 scholars, and thus early the Pashas and persons of distinction are inscribing the names of their sons, the number now reaching 200. Naturally, the Khedive, who is so anxious for the education of his people, is devoting special attention to the education of his own children. The Hereditary Prince Abbas Bey, as well as his brother Mehemet Ali Bey, have recently commenced taking lessons in the English language, under their own tutor, Mr. A. J. Butler, of Brasenose College, Oxford; and eight months ago the two young princes began instruction in their own language, under a professor of Arab literature belonging to the University of the Mosque de l'Azar before mentioned.

MIDNIGHT SUNSHINE.

The spectacle of the sun shining at midnight attracts many foreigners in Swedish Lapland during the month of June. For six weeks there is scarcely any night in the north of Sweden; the sun never sets, and the soil, constantly heated, produces in a month and a half barley and other crops. At that time of the year the Laplanders pen up their reindeer, and move their huts towards the cultivated fields. Being very hospitable, they greet with joy the arrival of tourists, who generally meet at Mount Gellaware, 148 kilometres from Lulea. From that hill, which is 580 mètres high, the beautiful spectacle of the "midnight sun" can be admired in better conditions than from any other place. June 24 is the day selected for the ascent; it is the longest day in the year, the sun being twenty-two hours above the horizon. This year June 24 was not favoured by fine weather; and, owing to a cloudy sky, the sun was not visible at midnight; but the following days travellers were well rewarded for their trouble, the sun shining brightly at midnight.—*School Guardian.*

GLASS IN EGYPT.

Egypt offers us the earliest positive evidences of glass-making. Sir Gardiner Wilkinson mentions that glass bottles containing wine are represented on monuments of the fourth dynasty, more than 4,000 years ago; and in the tombs at Beni Hasan the process of

glass-blowing is represented in an unmistakable manner. The earliest specimen of glass, bearing an inscription from which its date may be ascertained, which has as yet been met with, is the lion's head now in the Slade collection in the British Museum. This was found many years ago at Thebes by Signor Drovetti. It is formed of opaque blue glass of a very bright and beautiful colour (as may be seen from a fractured part), but time has changed it externally to an olive green. Dr. Birch has informed the writer that the hieroglyphics which are on the underside consist, on right side, of an uræus wearing the "hut" or white crown of the upper world or upper Egypt, and representing the goddess Sati (Juno); on the left side an uræus wearing the test or red crown of the lower world or lower Egypt, and representing the goddess Nat or Neith (Minerva); while the central hieroglyphics form the prenomen of Nuantef IV. of the eleventh dynasty, whose date, according to Lepsius's chronology, was B.C. 2423—2380. A head found at Thebes bears the prenomen of Hatasu, a queen who is conjectured to have lived about 1450 B.C.; this is of a dusky green glass, quite transparent, and is stated to have the specific gravity of bottle glass. It has been suggested that the material is not artificial glass but obsidian, which abounds in Egypt, and is occasionally of a green tint. Many coloured fragments are found in the tombs of Thebes, and a vitrified coating, usually blue or green, was given to objects formed of earthenware and even of stone or granite. A high value seems to have been attached to coloured glass at an early date; and vessels of fine opaque blue glass of Egyptian manufacture exist, edged with a tolerably thick plating of gold. Glass, if the Syrian, Greek, and Latin versions of the Old Testament are correct, is placed (in the book of Job) in the same category as gold; the English version renders the word crystal.—*Pottery Gazette.*

CRÈCHES.

"UNHAPPY the nation whose childhood is not beautiful," wrote Baldwin Brown. It is, nevertheless, only within the last ten years that the English nation appear to have realised the importance of turning their attention specially to the welfare of helpless infancy. About forty years since, M. Marbeau set up public cradles in Paris. The French nation understood that it is easier to implant virtuous impulses in the young than to destroy vicious ones in the old; and the vast Parisian nursery, where the babes are tended on the most approved scientific plan with all the method of a public department, offers many instructive lessons in political economy. The crèche at Brussels also succours many hundreds of infants daily, for a merely nominal sum, keeping some, and training them to make their way in the world. And in many London and country parishes in England provision is now made for taking care of infants while their

mothers are working to support them. The literal meaning of the word *crèche* is manger, adopted from the manger at Bethlehem, possibly in connection with the celebration of Christmas Day, which still holds good in many parts of Italy, where the *Bambino* is shown lying in the manger. A *crèche* in England is a nursery where, while hard-worked mothers are earning their own and their children's daily bread, their infants, too young to take care of themselves, are tended by careful nurses for a merely nominal sum, and often for nothing at all, the funds being found by the charitable. How great a boon such help is, the "short and simple," and indeed often sorrowful, "annals of the poor" amply prove. None of the *crèches* now open are able to take in anything like the number of applicants, and many hard cases are refused for want of room and for want of funds.

The routine of the several nurseries differs but little. The children are brought in betimes in the morning, and at once washed and redressed in clothes kept for their use, their own being placed in separate bags till they return home. The sick and ailing are kept apart in the infirmary; the rest are divided according to their ages. The several rooms appropriated to their use are filled with cots and playthings, and they are placed under the care of vigilant nurses, who feed them and see to their wants until they are fetched away at night. One can easily imagine what a boon such safety for the children would be to a hard-worked dock-labourer, for instance, left with a baby of a few months old, or some poor fellow whose wife is in hospital, or a servant in place, whose husband has deserted her, and who gladly pays half her wages to provide for her little one. In another instance the eldest child has to attend the Board school; the mother is enabled to get work by having her younger children taken care of, and the whole family are thereby kept from the workhouse. For *crèches* are among the few institutions which by stepping in in time, save much misery and much outlay, making worthy citizens out of materials very likely to turn out the exact reverse, and acting up to that most valuable of axioms, "Prevention is better than cure." An American, who is trying to raise similar *crèches* in his own country, speaks of them as "institutions which strike at the very root of beggary, vice, and crime, reaching a class with which the clergy are powerless to deal, and which elevate the poor."

The oldest *crèche* in England is the one established at Stepney Causeway by Mrs. Hilton. The nurseries present not unpleasing pictures. One child often amuses another; the very little ones congregate in a sort of cushioned pound railed in, while one is safe in a baby-jumper, and another in a rocking-chair. A different fate this to being left alone all day, with some cordial or a piece of rag steeped in laudanum used as a soporific to keep the child quiet during the mother's absence—a treatment ending often fatally at once, or leading to evil consequences in after life. Moral training, even at the early age of infancy, is not ignored, and the mothers

born as well as the children. The deplorable ignorance the mothers show in the management of their offspring is almost incredible. They give the youngest babies, a few months old, the same food they have themselves, and the infant mortality induced, as a matter of course, is out of all proportion to what it ought to be, many deaths being brought about by the use of stimulants.

Moreover, a kindly sympathy is developed among the mothers; they greatly wonder when they see the effect produced on their offspring by well ventilated rooms, cleanliness, wholesome food, and kindly nursing. Those interested in the little ones provide a good supply of toys, these gifts mainly arriving at Christmas, and chiefly from children and from mothers who, having lost their own little ones, consecrate what in happier days gave them pleasure to the happiness of less favoured infants. A doll to them is a sentient being. Many a happy hour is spent with pictures, Noah's ark, and Kinder Garten toys, and many an unstudied lesson learnt. Of these *crèches* there are still far too few, seeing the straits mothers are often put to who are compelled to go out to earn the daily bread. The Hindoo believes in the efficacy of a child's meritorious acts to make amends for the sins of the father and mother, and we of the West have far too plentiful instances of how the sins of the parents are visited on the children. It behoves us to remember that a positive good is done if "we remove but one grain from the mountain of human misery, and add one to the little hill of human joy;" and in tending children we achieve both objects.—*Globe*.

EXTRACT FROM DEAN STANLEY'S LIFE OF DR. ARNOLD.

For mere cleverness whether in boys or men he had no regard. Often when seen in union with moral depravity he would be inclined to deny its existence altogether; the generation of his scholars, to which he looked back with the greatest pleasure, was not that which contained most instances of individual talent, but that which had altogether worked steadily and industriously. The university honours which his pupils obtained were very considerable, and at one time unrivalled by any school in England, and he was unfeignedly delighted whenever they occurred. But he never laid any stress upon them, and strongly deprecated any system which would encourage the notion of their being the chief end to be answered by school education. He would often dwell on the curious alternations of cleverness or dullness in school generations, which seemed to baffle all human calculation or exertion. "What we ought to do is to send up boys who will not be plucked." A mere plodding boy was above all others encouraged by him. At Laleham he had once got out of patience and spoken sharply to a pupil of this kind, whom the pupil looked up in his face and said, "Why do you speak angrily,

Sir ?—indeed, I am doing the best that I can." Years afterwards he used to tell the story to his children, and said "I never felt so much ashamed in my life—that look and that speech I have never forgotten." And though it would, of course, happen that clever boys, from a greater sympathy with his understanding, would be brought into closer intercourse with him, this did not affect his feeling, not only of respect, but of reverence to those who, without ability, were distinguished for high principle and industry. "If there be one thing on earth which is truly admirable, it is to see God's wisdom blessing an inferiority of natural powers when they have been honestly, truly, and zealously cultivated." In speaking of a pupil of this character he once said,—"I would stand to that man hat in hand ;" and it was his feeling after the departure of such a one that drew from him the most personal—perhaps the only personal—praise which he ever bestowed on any boy in his sermons.

The subjoined letters will best show the feeling with which he regarded the academical successes or failures of his pupils :—

1. To a pupil who had failed in his examination at the University : . . . . . "I hardly know whether you would like my writing to you. Yet I feel strongly disposed so far as to presume on the old relation which existed between us, as to express my earnest hope that you will not attach too much importance to your disappointment, whatever it may have been, at the recent examination. I believe that I attach quite as much value as is reasonable to university distinctions ; but it would be a grievous evil if the good of a man's reading for three years were all to depend on the result of a single examination, affected as that result must ever in some degree be by causes independent of a man's intellectual excellence. I am saying nothing but what you know quite well already. Still the momentary feeling of disappointment may tempt a man to do himself great injustice, and to think that his efforts have been attended by no proportionate fruit. I can only say, for one, that, as far as the real honour of Rugby is concerned, it is the effort, an hundred times more than the issue of the effort, that is in my judgment a credit to the school, inasmuch as it shows that the men who go from here to the university do their duty there, and that is the real point, which alone to my mind reflects honour either on individuals or on societies ; and if such a fruit is in any way traceable to the influence of Rugby, then I am proud and thankful to have had such a man as my pupil. I am almost afraid that you will think me impertinent in writing to you ; but I must be allowed to feel more than a passing interest in those whom I have known and valued here ; and in your case this interest was renewed by having had the pleasure of seeing you in Westmoreland more lately. I should be extremely glad if you can find an opportunity of paying us a visit ere long at Rugby."

2. To a pupil just before his examination at Oxford :—

"I have no other object in writing to you than merely to assure you of my hearty interest about you at this time, when I suppose

that the prospect of your examination is rising up closely before you. Yet I hope that you know me better than to think that my interest arises merely from the credit which the school may gain from your success, or that I should be in a manner personally disappointed if our men were not to gain what they are trying for. On this score I am very hard, and I know too well the uncertainties of examinations to be much surprised at any result. I am much more anxious, however, that you should not overwork yourself, nor unnerve your mind for after-exertion. And I wish to say that if you would like change of air or scene for a single day, I should urge you to come down here, and if I can be of any use to you when here in examining you that you may not think that you would be utterly losing time in leaving Oxford, I shall be very glad to do it. I am a great believer in the virtues of a journey for fifty miles, for giving tone to the system where it has been overworked."

3. To a pupil who had been unsuccessful in an examination for the Ireland scholarship :—

"I am more than satisfied with what you have done in the Ireland; as to getting it, I certainly never should have got it myself, so I have no right to be surprised if my pupils do not."

His whole method of teaching was founded on the principle of awakening the intellect of every individual boy. Hence it was his practice to teach by questioning. As a general rule he never gave information except as a kind of reward for an answer, and often withheld it altogether, or checked himself in the very act of uttering it, from a sense that those whom he had been addressing had not sufficient interest or sympathy to entitle them to receive it. His explanations were as short as possible—enough to dispose of the difficulty and no more; and his questions were of a kind to call the attention of the boys to the real point of every subject and to disclose to them the exact boundaries of what they knew or did not know. With regard to younger boys, he said, "It is a great mistake to think that they should *understand* all they learn; for God has ordered that in youth the memory should act vigorously, independent of the understanding; whereas a man cannot usually recollect a thing unless he understands it." But in proportion to their advance in the school he tried to cultivate in them a habit not only of collecting facts, but of expressing themselves with facility, and of understanding the principles on which their facts rested. "You come here," he said, "not to read but to learn how to read;" and thus the greater part of his instructions was interwoven with the process of their own minds; there was a continual reference to their thoughts, an acknowledgment that, so far as their information and power of reasoning could take them, they ought to have an opinion of their own. He was evidently working not for, but with the form, as if they were equally interested with himself in making out the meaning of the passage before them. His object was to set them right, not by correcting them at once, but either by gradually helping them

on to a true answer, or by making the answers of the more advanced part of the form serve as a medium through which his instructions might be communicated to the less advanced. Such a system he thought valuable alike to both classes of boys. To those who by natural quickness or greater experience of his teaching were more able to follow his instructions, it confirmed the sense of responsible position which they held in school intellectually as well as morally. To a boy less ready or less accustomed to it, it gave precisely what he conceived such a character required. "He wants this," to use his own words, "and he wants it daily—not only to interest and excite him, but to dispel what is very apt to grow around a lonely reader not constantly questioned—a haze of indistinctness as to a consciousness of his own knowledge or ignorance; he takes a vague impression for a definite one, an imperfect notion for one that is full and complete, and in this way he is continually deceiving himself."

Hence, also, he not only laid stress on original compositions, but endeavoured so to choose the subjects of exercises as to oblige them to read and lead them to think for themselves. He dealt at once the death-blow to themes (as he expressed it) on "*virtus sed bona res*," and gave instead historical or geographical descriptions, imaginary speeches or letters, etymological accounts of words, or criticisms of books, or put religious or moral subjects in such a form as awakened a new and real interest in them; as, for example, not simply "*carpere diem*," or "procrastination is the thief of time," but "*carpere diem jubent Epicurei, jubet hoc idem Christus*." So again in selecting passages for translation from English into Greek or Latin, instead of taking them at random from the *Spectator* or other such works, he made a point of giving extracts remarkable in themselves, from such English and foreign authors as he most admired, so as indelibly to impress on the minds of his pupils some of the most striking names and passages in modern literature. "Ha! very good" was his well-known exclamation of pleasure when he met with some original thought; "is that entirely your own, or do you remember anything in your reading that suggested it to you?" Style, knowledge, correctness or incorrectness of statement or expression, he always disregarded in comparison with indication or promise of real thought. "I call that the best theme," he said, "which shows that the boy has read and thought for himself;" that the next best which shows that he has read several books, and digested what he has read; and that the *worst* which shows that he has followed but one book, and followed that without reflection.

The interest in their work which this method excited in the boys was considerably enhanced by the respect which, even without regard to his general character, was inspired by the qualities brought out prominently in the ordinary course of lessons. They were conscious of (what was indeed implied in his method itself) the absence of display which made it clear that what he said was to instruct them, not to exhibit his own powers; they could not but

be struck by his never concealing difficulties and always confessing ignorance; acknowledging mistakes in his edition of Thucydides; and on Latin verses, mathematics or foreign languages, appealing for help or information to boys whom he thought better qualified than himself to give it. Even as an example it was not without its use, to witness daily the power of combination and concentration on his favourite subjects which had marked him even from a boy, and which especially appeared in his illustrations of ancient by modern, and modern by ancient, history. The wide discursiveness with which he brought the several parts of their work to bear on each other; the readiness with which he referred them to the sources and authorities of information, when himself ignorant of it; the eagerness with which he tracked them out when unknown; taught them how wide the field of knowledge really was. In poetry it was almost impossible not to catch something of the delight and almost fervour with which, as he came to any striking passage, he would hang over it, reading it over and over again, and dwelling upon it for the mere pleasure which every word seemed to give him. In history or philosophy events, sayings, and authors would from the mere fact that he had quoted them, become fixed in the memory of his pupils and give birth to thoughts and inquiries long afterwards, which, had they been derived through another medium, would have been forgotten or remained unfruitful. The very scantiness with which he occasionally dealt out his knowledge, when not satisfied that the boys could enter into it, whilst it often provoked a half angry feeling of disappointment in those who eagerly treasured up all that he uttered, left an impression that the source from which they drew was unexhausted and unfathomed, and to all that he did say gave a double value.

Intellectually as well as morally he felt that the teacher ought himself to be perpetually learning, and so constantly above the level of his scholars. "I am sure," he said, speaking of his pupils at Lalebam, "that I do not judge of them or expect of them, as I should, if I were not taking pains to improve my own mind." For this reason he maintained that no school-master ought to remain at his post much more than fourteen or fifteen years, lest by that time he should have fallen behind the scholarship of the age; and by his own reading and literary works he endeavoured constantly to act upon this principle himself. "For nineteen out of twenty boys," he said once to Archbishop Whately in speaking of the importance, not only of information, but real ability in assistant masters (and his remark, of course, applied still more to the station which he occupied himself), "ordinary men may be quite sufficient, but the twentieth, the boy of real talents, who is more important than the others, is liable even to suffer injury from not being early placed under the training of one whom he can, on close inspection, look up to as his superior in something besides mere knowledge. The dangers," he observed, "were of various kinds. One boy may acquire a contempt

for the information itself, which he sees possessed by a man whom he feels nevertheless to be far below him. Another will fancy himself as much above nearly all the world as he feels he is above his own tutor; and will become self-sufficient and scornful. A third will believe it to be his duty, as a point of humility, to bring himself down intellectually to a level with one whom he feels bound to reverence, and thus there have been instances, where the veneration of a young man of ability for a teacher of small powers has been like a millstone round the neck of an eagle."

His practical talent as a scholar consisted in his insight into the general structure of sentences and the general principles of language, and in his determination to discard all those unmeaning phrases and forms of expression by which so many writers of the last generation and boys of all generations endeavour to conceal their ignorance. In Greek and Latin composition his exceeding indifference to mere excellence of style, when unattended by anything better, made it difficult for him to bestow that praise which was necessary to its due encouragement as a part of the school work, and he never was able to overcome the deficiency, which he always felt in composing or correcting verse exercises, even after his increased conviction of their use as a mental discipline. But to prose composition in both languages he had from the first attached considerable importance, not only as the best means of acquiring a sound knowledge of the ancient author, but of attaining a mastery over the English language, also by the readiness and accuracy of expression which it imparted. He retained to himself that happy facility for imitating the style of the Greek historians and philosophers, for which he was remarkable in youth, whilst his Latin prose was peculiar for combining the force of common Latinity with the vigour and simplicity of his own style perfectly correct and idiomatic, yet not the language of Cicero or Livy, but of himself. In the common lessons his scholarship was chiefly displayed in his power of extempore translation into English. This he had possessed in a remarkable degree from the time that he was a boy at Winchester, where the practice of reading the whole passage from Greek or Latin into good English, without construing each particular sentence word by word, had been much encouraged by Dr. Gabell, and in his youthful vacations during his Oxford course he used to enliven the sick-bed of his sister Susannah by the readiness with which in the evenings he would sit by her side, and translate book after book of the history of Herodotus. So essential did he consider this method to a sound study of the classics that he published an elaborate defence of it in the *Quarterly Journal of Education*, and, when delivering his Modern History lectures at Oxford, where he much lamented the prevalence of the opposite system, he could not resist the temptation of protesting against it, with no other excuse for introducing the subject than the mention of the Latin style of the Middle Age historians. In itself he looked upon it as the only means of really entering into the spirit

of ancient authors; and requiring as he did besides that the translation should be made into good English, and, if possible, into that style of English which most corresponded to the period or the subject of the Greek or Latin writer in question, he considered it further as an excellent exercise in the principles of taste and in the knowledge and use of the English language no less than of those of Greece and Rome. He was constantly on the watch for any inadequacy or redundancy of expression—the version was to represent, and to more than represent, the exact words of the original; and those who either as his colleagues or his pupils were present at his lessons or examinations, well know the accuracy with which every shade of meaning would be reproduced in a different shape, and the rapidity with which he would pounce on any mistake of grammar or construction however dexterously concealed in the folds of a free translation. . . . . When asked once whether he did not find the repetition of the same lessons irksome to him, "No," he said "there is a constant freshness in them; I find something new in them every time I go over them." The best proof of the pleasure which he took in them is the distinct impression which his scholars retained of the feeling, often rather implied than expressed, with which he entered into the several works; the enthusiasm with which, both in the public and private orations of Demosthenes he would contemplate, piece by piece, "the luminous clearness" of the sentences; the affectionate familiarity which he used to show towards Thucydides, knowing as he did the substance of every single chapter by itself; the revival of youthful interest with which he would recur to portions of the works of Aristotle; the keen sense of a new world opening before him, with which in later years with ever increasing pleasure he entered into the works of Plato;—above all, his childlike enjoyment of Herodotus and that "fountain of delight and beauty which no man," he said, "can ever drain dry," the poetry of Homer. The simple language of that early age was exactly what he was most able to reproduce in his own simple and touching translations; and his eyes would fill with tears when he came to the story which told how Cleobis and Bito, as a reward for their filial piety, lay down in the temple, and fell asleep and died.

THE MONITORIAL SYSTEM IN ENGLISH PUBLIC SCHOOLS. By Rev. W. A. Fearon.

I do not come forward as a panegyrist of the monitorial system. I should be prepared to maintain, that it is acceptable, serviceable, and for most schools even necessary; but it does not, by any means, seem to me a sacred possession which it is profane to touch; rather, I regard it, as so much in Public School life has to be regarded, as in itself largely evil, necessary to avoid greater evils. A great deal of the educating value attributed to it is really due to the intellectual

atmosphere by which the Sixth Form is necessarily surrounded, to the closer intercourse with the Head-master and the House-master, to the combination of age and intelligence, which carries with it necessary responsibility and influence. And, if the system does not seem to me immaculate as a system, much less does the application of it in Public Schools of the present day seem to me beyond reproach. To whatever various causes we may attribute the phenomenon, it is a fact that, in many large schools, it is found extremely difficult to keep up an *effective* government by Prefects in all the separate Houses of the school—that there is a great lack of corporate feeling among the Prefects—and that, owing to this last circumstance, the system is often liable to abuse, from the weakness, or excessive zeal, of individuals.

There is, probably, hardly any point of school life about which it is more difficult to collect certain evidence; the theory and the practice of monitorial authority are, in many cases, so very wide apart. From information specially collected, however, it may perhaps be stated, that at all leading schools, except Eton, the monitorial system exists; and that, at all schools where it exists, some form of corporal punishment by Prefects is a recognised element in the system. It is not surprising that this mode of punishment should have seemed repulsive and degrading to the very able Commissioners who reported on our Public School system to the late Emperor of the French. But, if one may accept the unanimous testimony of late Prefects, and late victims from various schools, whether the victim ought to feel degraded or not, the fact remains that he does not. While almost everything else is objected to somewhere or other, the corporal punishment seems to be joyfully welcomed as a good old friend by everyone.

For the rest, the system appears in two divergent forms—after a full-blown, elaborate, and comprehensive type, or in looser and more confined application. In the latter case, the Prefects keep necessary order, and punish what is condemned by the moral tone of the school merely; in the former, they are more strictly deputies of the Masters, punishing offences against school rules, though not condemned by public opinion, and acting as a sort of school police. It seems to follow, as a corollary, that in this case, on the one hand, there is much more precise organisation, and much more corporate feeling; and, on the other hand, that petty punishments, such as impositions and gating, are largely in vogue. There can be no doubt that this form of the system is the strongest and most effective: there is much more likelihood of the school being strongly governed—much less likelihood of abuse from individual caprice. I speak most hesitatingly on the point. But the real objections to such a system seem to lie in the separation, and even alienation in some cases, of the Sixth Form, the most intellectual class, from the main body of the school; and still more in the danger to the individual Prefect's character—the danger of engendering an undue feeling of self-

importance and oppressive weight of responsibility, from thrusting him at too early an age into the unnatural position of a sort of assistant usher.

The first question which it seems desirable to raise, is, Which type of the monitorial system is the best?—that, under which monitors are simply guardians of school morality, or that under which they they take an important part in the daily working of the machinery? How far it would be *possible* to introduce into old schools, where there was no such tradition, a system as rigorous as that which Dr. Cotton so successfully created at Marlborough, may be questioned. But without altering the principle of any existing system, I believe that much might be done to approximate to that better organisation, and that development of corporate feeling, which were found to exist under Dr. Cotton's system.

With regard to the monitorial system generally, there are three questions which I wish to raise:—

First, a question which is fundamental,—Can we dispense with it? Is it necessary at all?

The French Commissioners, already referred to, regard it as the natural and almost necessary accompaniment of English Public School liberty. In an admirable passage, they contrast the free cheery spirit of English school life under the monitorial system, with that natural antagonism between masters and pupils, which in French schools has become so proverbial as to be styled *l'esprit frolier*. The French school is, to quote their own words, "a regiment proud of its uniform, obedient to authority, but ever grumbling and growling against it, marching to the sound of the drum, and taking by storm Greek, Latin, History, and Mathematics." However, of course no Englishman would dream of substituting for our existing conditions the French espionage. The rival claimant to the monitorial system is not increased Masters' surveillance, but the general and undefined public opinion, working by its own methods, and finding its own modes of expression. And where Prefects are merely used to maintain the standard of morality and discipline sanctioned by the public opinion of the school, the question may reasonably be asked, which the Public Schools Commissioners of 1864 did ask,—Cannot public opinion be trusted to maintain itself? It is notorious that there is one conspicuous instance of an affirmative answer to this question. But the conditions of Eton are peculiar; and even at Eton, so far as I can learn, the Head of a House is entrusted, within the House, with a responsibility and power very similar to those of the ordinary Prefect. The necessity of some regularly constituted authority will, no doubt, depend somewhat on the varying domestic arrangements of a school. With a hostelry arrangement, monitors seem most indispensable: with an arrangement of large public rooms, they could be less easily spared than under the Eton system of single rooms. Without attempting to discuss the subject, I would state laconically, that for most schools Prefects are necessary,—firstly

and mainly, to give strength, and body, and what I may call consistency to the *best* public opinion; and secondly, to gauge to the Master the character of that public opinion. The second point is often lost sight of; but there is no such ready means for feeling the pulse of public opinion as a Master's knowledge of his Prefects.

The second question is—How are we to minimize the possible bad effects of monitorial power on the monitor's own character? Some people consider these effects to be unalloyedly good; and I hope there can be no doubt that they are on the side of good. If I do not dwell on these good effects, it is only because their praises have, over and over again, been trumpeted somewhat loudly, and because, with our English love of independence and self-government, we are not likely to be blind to them. On the other hand, there are bad effects, equally real, though certainly more exceptional. It seems to me unavoidable, that some boys, not only from timidity, but from delicacy and sensitive conscientiousness, should feel the weight of monitorial responsibility too great for them, and be crushed by it. Any Master of experience knows instances of boys who have been so crushed, and who have only emerged into vigorous manly self-confidence after leaving school. But the common case is exactly the opposite of this,—where a monitor conceives an undue sense of his own importance, and nurses himself in his pride. To quote the words of the Public School Commissioners, "there is always a risk lest the delegation to school-boys of authority to inflict punishment on their school-fellows, should make those entrusted with it imperious and tyrannical, or priggish and self-sufficient." It is in the hope of avoiding these dangers, that I think it better not to keep constantly before boys' minds the sense of their monitorial responsibility; that I would limit, as far as may be, the area of such responsibility; that I would discountenance all petty punishments inflicted by Prefects, such as impositions, gating, &c. It is obvious that the opportunity for petty tyranny on the one hand, or for self-complacency on the other, is most largely given in the case of these minor punishments.

Thirdly; let us raise the question—What safeguards can be provided for the protection of the victims against lack of judgment or lack of temper on the part of monitors? I intend to assume (though, of course, it is a very large assumption) that corporal punishment must be used as a final resort; though I have no doubt that the measure of the effectiveness of one's Prefects is in their small use of the stick. It is clearly undesirable to flaunt the stick, as a badge of office, for daily use—or uselessness. For my own part, I would desire never to see a Prefect's cane inside my House. The real crux of the system is a case of insubordination, where a Prefect has not got complete control. If every punishment must take place at a stated interval after the offence, or indeed at a stated time and place; if, again, no Prefect is allowed to punish for any offence committed personally against himself, how is he to act for

the moment? He can't abdicate; yet the Commune is proclaimed. The difficulty is real; yet, considering the risk of loss of temper and loss of dignity from immediate action, it would seem best to insist on these rules:—First, that monitorial punishments should take place at a stated time and place; and secondly, that no Prefect should punish offences personal to himself. The further safeguards —that there should be a fixed limit to the number of strokes inflicted, and that an appeal to the Head-master should be always open— would probably be conceded by everyone.

The most pressing difficulties in reference to the monitorial system which are felt in most schools at the present day are—that, from the greater ease in the relations of modern school life, and from the free intermixing, under the House system of Prefects with those who are not Prefects, there is want of corporate feeling, and consequently a want of strength, dignity, and effectiveness, in the monitorial government: further, that in particular Houses of a school, and indeed in almost every House from time to time, the monitorial system is endangered from lack of monitors; and thus, from the existence of non-monitorial government, the regular government of monitors is brought into disrepute. The only remedies I have to propose are—1st, to abolish, as far as possible, small occasional punishments, as undignified and ineffective; second, to establish clear rules for the infliction of any punishment, especially with regard to time and place; third, to develop corporate feeling by means of a Prefects' Room, and occasional Prefects' Councils, so that a weak Prefect may feel that he has a Prefects' Court behind him, to back him and even compel him to do his duty.

GOVERNMENT CENTRAL BOOK DEPÔT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th July to 15th August 1880.

New Editions published.

MARATHI.

	Rs.	a.	p.
Morris' History of India, translation of, 8th Edition, 1880.	0	9	0

Fresh Supply purchased.

ENGLISH.

Cunningham's Sanitary Primer	0	1	0

GUJARATI.

Dalpatram's Hunnar Khanani Chaulsi	0	1	0

New Map specially prepared.

MARATHI.

Johnstone (A. K.)—Map of Asia coloured, varnished, and mounted on cloth and rollers.....	6	0	0

N. V. BAPAT,
Curator.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM THE 16th JULY TO 15th AUGUST 1880.

17*th July* 1880.—Mr. D. R. Tarkhadkar, Second Assistant Master Elphinstone High School, (Marathi side), is appointed First Assistant in the same school, *vice* Mr. Keskar.

17*th July* 1880.—Mr. D. G. Kelkar, M.A., is appointed Second Assistant Master, (Marathi side), Elphinstone High School, *vice* Mr. Tarkhadkar promoted, but to continue to act as First Assistant in the same School, *vice* Mr. Tarkhadkar.

19*th July* 1880.—Mr. H. B. Jambhekar is appointed substantive *pro tem.* Fifth Assistant Master, (Marathi side), Belgaum Sirdars' High School.

20*th July* 1880.—Mr. Harjeevandas Valiram, substantive *pro tem.* Tutor to the young Mirs of Mirpur, is appointed Acting Fourth Assistant Master, Hyderabad High School.

20*th July* 1880.—Mr. Johangimal Thavardas, substantive *pro tem.* Fifth Assistant Master, High School, Hyderabad, is appointed Acting Fifth Assistant Master in the same school.

20*th July* 1880.—Mr. Balchand Khubchand, substantive *pro tem.* Sixth Assistant Master, High School, Hyderabad, is appointed Acting Sixth Assistant Master in the same school.

20*th July* 1880.—Mr. Sobhraj Tekchand, substantive *pro tem.* Fourth Assistant Master, Shikarpur High School, is appointed Acting Fourth Assistant Master in the same school.

20*th July* 1880.—Mr. Dennal Kemchand, substantive *pro tem.* Sixth Assistant Master, Shikarpur High School, is appointed Acting Sixth Assistant Master in the same school.

22*nd July* 1880.—Mr. Balwant Ramchandra Sahasrabudhe, B.A., is appointed Third Assistant Master in the Poona High School, *vice* Mr. Gharpure, transferred to the Judicial Department.

22*nd July* 1880.—Mr. G. G. Pandit, B.A., is appointed Fourth Assistant Master in the Poona High School, *vice* Mr. B. R. Sahasrabudhe.

22*nd July* 1880.—Six weeks' sick leave is granted to Mr. H. P. Lad, Eighth Assistant Master, Satara High School.

22*nd July* 1880.—Mr. S. D. Behere, Ninth Assistant Master, Satara High School, is appointed Acting Eighth Assistant Master in the same school, *vice* Mr. Lad, on leave.

22*nd July* 1880.—One year's leave, without pay, is granted to Mr. B. N. Mehta, Second Assistant Master, Balsar English School.

22*nd July* 1880.—Mr. Rastamjee Dhunjishaw, Third Assistant Master in the Balsar English School, is appointed substantive *pro tem.* Second Assistant Master in the same school, *vice* Mr. Mehta.

22*nd July* 1880.—Mr. Parmanandas V. Gokhle, Eighth Assistant Master in the Rajkot High School, is appointed last Assistant Master in the Rajkumar College, Rajkot.

23*rd July* 1880.—Mr. Vaikuntram Anandram, F.E.A., is appointed substantive *pro tem.* Fifth Assistant Master, Rajkot High School, *vice* Mr. Laxmishankar P. Aduljs, resigned.

23*rd July* 1880.—Mr Gulabbai L. Desai is appointed substantive *pro tem.* Eighth Assistant Master in the Rajkot High School, *vice* Mr. Gokhle, transferred to the Rajkumar College.

24*th July* 1880.—Mr. B. A. Phanase is appointed substantive *pro tem.* Sanskrit Teacher in the Tanna High School, *vice* Mr. Datar, on leave until further orders.

24*th July* 1880.—Mr. Ramchandra Trimbuck Patwardhan is appointed (on probation) Sixth Assistant Master in the B. J. High School, Tanna.

24*th July* 1880.—Mr. D. F. Hogan, B.A., is appointed Junior Dakshina Fellow in the Deccan College, until the end of December next.

24*th July* 1880.—Mr. Jamiatram Raghuram Jogalur, F.E.A., is appointed substantive *pro tem.* Tenth Assistant Master, Surat High School.

28*th July* 1880.—Mr. N. L. Bhatkal, First Assistant, First Grade Anglo-Vernacular School, Hubli, is appointed Kanarese Teacher, First Grade Anglo-Vernacular School, Karwar.

28*th July* 1880.—Mr. Hanamant S. Sagar, late First Assistant, English School, Savanur, is appointed First Assistant Master, First Grade Anglo-Vernacular School, Hubli.

30*th July* 1880.—Mr. K. N. Sane, B.A., Second Assistant Master, Poona High School, is appointed Acting First Assistant Master in the same school, *vice* Mr. Sahasrabudhe.

30*th July* 1880.—Mr. B. A. Bhagwant, B.A., is appointed Acting Second Assistant Master in the Poona High School, *vice* Mr. Sane, promoted.

30*th July* 1880.—Mr. H. R. Patwardhan is appointed Acting Third Assistant Master in the Poona High School.

30*th July* 1880.—Mr. Balkrishna Ramchandra Sane is appointed substantive *pro tem.* Thirteenth Assistant Master in the Poona High School.

3rd *August* 1880.—Mr. G. R. Vaze, Second Assistant Master, Kalyan English School, is appointed Acting First Assistant Master in the Kalyan English School.

3rd *August* 1880.—Mr. N. S. Kulkarni, Sanskrit Teacher in the Kalyan English School, is appointed Acting Second Assistant Master in the same school, *vice* Mr. Vaze, promoted.

3rd *August* 1880.—Mr. K. G. Rege is appointed Acting Sanskrit Teacher in the Kalyan English School, *vice* Mr. Kulkarni, promoted.

4th *August* 1880.—Mr. Ganesh Vyankatesh Joshi, Second Assistant Master in the Nasik High School, is appointed Acting First Assistant Master in the same school, *vice* Mr. Tilak, who is appointed to act as Deputy Inspector, Nasik.

5th *August* 1880.—One and a half month's sick leave is granted to Mr. Bhimacharya Lala Rikar, Sanskrit Teacher in the Elphinstone College.

5th *August* 1880.—The unexpired portion of ten days out of two months' privilege leave granted to Mr. Bhacheh, Sub-Deputy Educational Inspector, Surath Prant, is cancelled.

9th *August* 1880.—Mr. Rainrao Venkaji Divigikar, B. A., is appointed Second Assistant Master (on probation) in the Karwar High School.

9th *August* 1880.—Mr. Keshava Janardhan Agashe, B. A., is appointed substantive *pro tem.* Thirteenth Assistant Master, Poona High School, *vice* Mr. Sane, resigned.

13th *August* 1880.—Mr. S. A. Palsikar is appointed Acting Second Assistant Master, Nasik High School, *vice* Mr. Joshi.

14th *August* 1880.—Mr. L. M. Gomes is appointed (on probation) Drawing Master, Elphinstone High School.

14th *August* 1880.—Mr. C. R. D'Lemos is appointed Drawing Master, Byramji Jijibhoy High School, Tanna, (on probation).

14th *August* 1880.—Mr. Dinkhar Moreshwar is appointed (on probation) Drawing Master in the Elphinstone College.

14th *August* 1880.—Mr. Krishnarao Bhai is appointed (on probation) Drawing Master, Jagannath Sankerset English School, Bombay.

14th *August* 1880.—Mr. Tookaram Ramkrishna is appointed (on probation) Drawing Master in the Chandanwadi English School, Bombay.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
24th *August* 1880.

Bombay Educational Record.

No. 10.] OCTOBER 1, 1880. [Vol. XVI.

THE MONTH.

A short code of rules has been published by Government defining and slightly extending the duties of the District officers in regard to the primary schools of this Presidency. All District officers, including the Educational Inspectors and Deputy Educational Inspectors, are *ex officio* members of the Zilla or Taluka Local Fund Committees; and the Committees have hitherto had authority to sanction Local Fund budgets, to vote money for schools and school-buildings, and to determine the places where schools are to be opened or closed. In addition to these powers, the Government now give the Committees undisputed authority to determine what departmental standards of instruction shall be taught in each primary school and what shall be the scale and percentage of school-fees and of free admissions, this latter power being subject to such limitation as may be prescribed by Government. The rules also bring the Educational and Revenue members of the Committees into more detailed co-operation than formerly by directing (1) that the reports on the examinations of primary schools by Deputy Educational Inspectors should be circulated to all the members concerned, and (2) that the Assistant Collectors and their subordinates should visit the schools in their respective districts and formally report results to the President of the Zilla Committee, who, if necessary, will communicate with the Educational Inspector. We shall republish these rules and the Resolution promulgating them in our next number.

The progress of education in England since Mr. Forster's Bill is shown by the following table:—

	Accommodation.	Scholars on the Register.	Average Attendance.	Percentage of population on Registers.
1870	1,878,000	1,693,000	1,152,000	7·7
1874	2,972,000	2,497,000	1,679,000	10·6
1879	4,142,000	3,710,000	2,565,000	14·7

Over £20,000,000 had been spent on building alone by Voluntary

bodies and School Boards since 1870, of which over £13,000,000 had been spent by School Boards. The cost per scholar had risen from £1 5*s.* 5*d.* to £1 16*s.* 5*d.*, but this extra cost was partly met by the rise of nearly 2*s.* a head in school-fees.

THE *New Free Press* extracts from a Russian journal, called the *Elementary School Teacher*, some interesting statistics of elementary education in Russia. It appears that of all the children in St. Petersburg who are of fit age for school only 41 per cent. are actually being taught. There are 30,000 children in St. Petersburg who go to no school whatever. The government of St. Petersburg—that is, the district of which St. Petersburg is the centre—is still worse off. Not quite 25 per cent. of the children go to school. In the Moscow government the percentage is only 15, while in the town of Moscow itself it goes as low as 12. In Bessarabia 40 per cent. of the children go to school, in Kazan 36 per cent., in Penza 28 per cent. The worst of it is, that in all these cases the population is not pure Russian, but contains a strong German or Finnish element. The position occupied by Bessarabia points in the same direction. The Russian journal concludes its remarks by pointing out that, if all the Russian people are to be educated, there will be 1,000 new schools wanted in the St. Petersburg Government, 2,600 in that of Novgorod, and, not to mention other instances, as many as 5,000 in that of Charkow.

THE *School Guardian* has the following remarks on the duties of Her Majesty's Inspectors of Schools in England:—

A Circular, addressed to Her Majesty's Inspectors by Sir Francis Sandford, on behalf of the Department, calls their attention to the new Education Act, and practically places upon them the duty of seeing that it is properly carried out. "It will be necessary," says the Circular, "to watch very carefully, not only the working of the new Act, but *the exercise of compulsory* powers throughout the country at large. The schools that exist are not, in most districts, more than sufficient to meet the requirements of the population, and they ought to be full." Very true; but who is to do the watching, and to scrutinise "the working of compulsory powers?" The answer is found in the Circular in these words:—"They" (*i.e.* the schools) "are yearly visited by a public officer, and it is the duty of such officer and of the department under which he works, rather

than that of individual parishioners, to see that the local authority of each district do their duty in filling up the schools of the district by enforcing the attendance of scholars." The local authority must put the bye-laws in motion; the Inspector is to keep the local authority up to its work by reporting cases of neglect to the department. On this the instructions of Sir Francis are very clear:—

"You will, therefore, be so good, in every case in which you find that the school supply of a district is not made use of to any serious extent, to make inquiry into the cause of the slackness of attendance; and, if you find that it may be reasonably attributed to a failure on the part of the local authority to perform its statutory duties, you will make a special report to the department, that steps may be taken to remedy the evil."

In addition to this, the Inspectors are also to have power to report upon cases of illegal employment of children. Altogether, a considerable addition is thus made to the ordinary duties of an Inspector; and it seems probable that the department will be compelled at no distant time to re-distribute the duties of Inspectors, giving to one class inspection proper, including everything connected with statistics, finance, tone, and the general working of the Education Acts; and to another, the simpler duties of examiners in results. It is highly probable that not a few of the complaints that have been recently made against some Inspectors are due to the crowding upon them of a greater variety of duties than is consistent with the primary objects of their appointment. When this has been done to a little further extent, the last straw will be reached, and the Inspectorial camels—about 150 of them—will be found some fine morning all lying on their broken backs, the victims of overwork and of official cruelty.

The Postmaster-General, in a recent speech on the Savings-Bank Bill, informed the House of Commons that an experiment is about to be tried, under his direction, for affording facilities to the public for collecting, by means of postage-stamps, sums of one shilling, that being the smallest amount now received by the Post-Office Savings-Bank. The following is a note appended to the form issued by the department:—"Any person desirous of saving 1s., by means of penny-contributions, for deposit in the Post-Office Savings-Bank, may do so by purchasing with every penny so saved a penny-

postage-stamp and affixing it to this form. When twelve such stamps have been so affixed, the form may then be taken to any Post-Office Savings-Bank in the United Kingdom, where it will be received by the Postmaster either as a first deposit in a new account then to be opened, or as an ordinary deposit, if the owner of it has already opened an account. The stamps affixed to this form must not be defaced, or in any way damaged, or they cannot be received by a Postmaster."

The theory so generally believed till recently, that the female mind was unequal to the study of the higher subjects in Classics and Science, has been to a great extent shaken by the certified success of ladies in the Cambridge Honour-Examinations. Girton College and Newnham Hall are not deterred by the difficulties of either Tripos: and only lately one of the Prime Minister's daughters obtained a very distinguished place. Similar success is won by women in some of the subjects of the Science and Art Examination; while in the recent Matriculation and 1st B.A. Examinations of the London University the success of a large number of ladies has excited general astonishment. In French two of them stand alone in the first class, none of their male rivals having got beyond the second. In German there is a lady in the first class; while one has obtained honours in Latin, two in English, and two in mathematics A student from Newnham has taken honours in Botany and Chemistry.

Nor is it in England only that ladies are thus moving to the top. American ladies have lately taken high places in some of the Colleges, in Classics, Science, History, Modern Languages, and Medicine. Evidently we are only at the beginning of a great advance in female education. Even in our English Elementary Schools and in our Training Colleges the girls are winning the laurels. The leavening of Society by the presence of a large number of women of exceptionally high culture cannot but tend to raise the general standard of intelligence, and give a useful impetus, in many quarters, to the higher education of both sexes.

The *Athenæum* says that Mr. C. A. Fyffe, Fellow of University College, Oxford, is writing a history of modern Europe, which is to fill three volumes, and will be published by Messrs. Cassell, Petter, and Galpin.

THE *Golos* gives the following account of the condition of things in one of the central governments of Russia :—

The sanitary commission, despatched to the government of Poltava to deal with the diphtheria epidemic, has been giving its principal attention to the disinfection of the peasants' houses. This is considered the only effective measure for getting rid of the germs of the disease, but the practical application of this sanitary proceeding often meets with insuperable difficulties. The houses are disinfected by burning sulphur in the rooms after closing them hermetically. The peasants regard this measure as a profanation of their dwellings, and obstinately oppose it. Such has been the case particularly in one locality, where the nuns in a neighbouring convent would not on any consideration allow their cells to be disinfected, notwithstanding the orders and the entreaties of the abbess. They even spread abroad the report amongst the peasants that the priest would excommunicate all who had their houses disinfected, as being "possessed with the evil spirit." The nuns visited the villages, encouraging the peasants in their resistance, persuading them that disinfection was injurious to their health, and was a sign of the end of the world. Nothing could convince the peasants of the necessity for disinfection. They regarded it as a wicked proceeding, opposed to their religious rites. The most earnest and unanswerable arguments they met by the unique reply, "Cure the sick where there are any, but what connection can the sickness have with our houses?" The considerable mortality amongst the children does not make much impression on the country population. "Many have died, it is true," say some of the peasants; "but you see how many are left." Often it is impossible to overcome the armed crowd which guards the houses. It is well known that in the village of Fédoulki the peasants formed the intention of burning a sister of charity, engaged in sanitary work, and were preparing a funeral pile, from which the sister was saved by the interference of the police. The priest of this village, who has unsuccessfully endeavoured to make the inhabitants understand the necessity of disinfection, has entirely lost their confidence and good opinion.

Chinese youths desirous of conforming to European manners fall into dire disgrace with their countrymen. Thus an unlucky Celestial student at an American University, who recently cut off his pigtail, found his studies at once stopped by the Mandarin in charge

of the Chinese students in the States, and was sent home to China in consequence of this unpardonable offence.

THE *Dublin Mail* understands that the Church Missionary Society has obtained the services of the Rev. John Galloway Garrett, curate of Clonturf, as the head of their training college in Kandy, Ceylon. Mr. Garrett was a distinguished student in Trinity College, Dublin, being successful as an undergraduate in both classics and science honours. The college in Kandy is affiliated to the Calcutta University, and its students consist of the young men of the better classes of Ceylon, about one-half of them being Christians, the rest attending for advantages of secular education.

THAT the evil product of great cities which goes by the name of "street arabism" is on the increase, says *the Globe*, can scarcely be doubted by any urban resident who uses his eyes. Equally incontestable is it that a fungus growth, possessing the germs of such infinite mischief to the community, ought to be attacked with all possible earnestness. When, however, it comes to devising the means by which this end may be attained, philanthropy shakes its head in despair. Our improved educational appliances, our homes for waifs and strays, all our machinery for rescuing children from the gutter evidently fail to produce the intended effect. Some good is done, no doubt; but every little "Jo" in the streets, every wretched ragamuffin loafing about the metropolis in search of food, is a proof that we are still very far from the root of the evil. Recognising this painful fact, the writer of a thoughtful pamphlet which has been forwarded to us strongly urges the advisability of direct State interference. To begin with, he would have the School Board and Poor Law machinery set in motion for the discovery of the parents of all children known to the police as habitual street arabs. This step having been taken, the next thing would be to find out the actual circumstances of the parents or other guardians of the waifs, so that the very poor might be separated from the rest and be dealt with less severely. It might also be ascertained what children were orphans, what the offspring of utterly depraved and vicious parents, and what were being trained to vile courses. The classification being completed, it would rest with the State to

their children in accordance with the prescriptions of civilised humanity. In other cases, the State itself would perform parental duty by catching the wandering waifs and keeping them in its grasp until fit to enter into the struggle of life. Such are the rough outlines of the scheme drawn up by Mr. Cosell; and, so far as they go, they seem to promise a great improvement on the present state of things. But we are not so sanguine as the author of the proposal that the adoption of this plan would not involve any appreciable increase of cost. To make the machinery work properly, a considerable number of people would have to be employed to hunt up neglected children in every slum; and that work involves considerable expenditure, as the School Board authorities know to their cost. But, even admitting that the outlay would be large for some years, society would eventually reap a splendid harvest in the consequent diminution of the criminal classes. These are very largely recruited from the ranks of street arabism—the wretched regiment that is educated in dishonesty and immorality from earliest infancy.

The number of different languages and dialects spoken in the known world is 2,623, of which 587 belong to Europe, 936 to Asia, 376 to Africa, and 1,264 to America. The English language is more widely spread among the civilised nations of the earth than any other tongue, and is the native dialect of about 80,000,000 people; German comes next, 60,000,000; then French, 50,000,000; then Spanish, 40,000,000; and Italian, 28,000,000.

THE MIDNIGHT OIL.

Thomas Wentworth Higginson, one of the most graceful of contemporaneous American essayists, and a man of vigorous health, who takes the greatest possible care of himself, is said to write only by daylight, never putting pen to paper after sundown. It may be safely asserted, however, that Mr. Higginson is an exception among literary men as regards his hours of work. The weight of authority goes to prove that it is only by the midnight oil that the writer can assemble his thoughts. "Jokes," observes Charles Lamb, exposing "A Popular Fallacy," "come in with candles. It is a mockery," he continues, "all that is reported of the influential Phoebus. No true poem ever owed its birth to the sun's light. They are abstracted works—

> "Things that were born when none but the still night
> And his dumb candle were his partning throes."

Marry, daylight—daylight might furnish the images, the crude material; but for the fine shapings, the true turning and filing (as mine author hath it), they must be content to hold their inspiration of the candle." Pope implies the same thing when he satirises the pensive poets keeping painful vigils—

"Sleepless themselves, to give their readers sleep."

Further urging his belief that it is night and silence which stimulate the imagination, Lamb would hold a good wager that Milton's "Morning Hymn in Paradise" was penned at midnight; while as for Taylor's beautiful description of a sunrise," it smells decidedly of the taper." Balzac among French writers is a conspicuous example of the literary man who, in Shakespearean phrase, "doth make the night joint labourer with the day." When at work on "Le Médecin de Campagne"—that book which he estimated to be worth more than a law or twenty victories—he only slept five hours a day. He wrote from midnight till noon, then corrected proofs till four o'clock. The brief remaining interval was occupied with dining and a short promenade. He went into a kind of perverted training for this match with time—as exhausting as most matches of the kind. How fatally it terminated, hastened by the abuse of coffee, is a mournful page of literary biography. But when the curtain fell on the last act of the drama of his life, Honoré de Balzac was famous.

A celebrated living English novelist, whose books are decidedly sensational in colour, may be said to resemble the great French romancist in at least one particular. He is reported to begin his day at six in the evening, and to struggle on gamely till the same hour next morning. Carlyle, during the period of his greatest mental activity, sat at his desk until two in the morning, though it is only fair to say that of late years he has strongly shown a belief in the early hours of the day. Thackeray, too, used often to write far into the morning; and some of Poe's best sketches were midnight pennings. Indeed, a close comparison of the habits of men of letters will show that a large proportion of them do their work whilst the rest of the world is wrapt in slumber.

To the student, night-reading is the most congenial, the most satisfying—and, we are bound to add, the most injurious. By tradition your true bookworm borrows deepest at night. Perhaps the essayist was right when he exclaimed, "There is absolutely no such thing as reading but by a candle." Had he tried the perusal of a book at noonday and found it labour thrown away?

"Whence is thy learning? Hath thy toil
O'er books consumed the midnight oil?"

There is, at least, a grain of logic in the tradition; for supposing the author to have given his thoughts expression by the light of the taper, it is no more than consistent to believe that we ought to approach their perusal by the same light, "if we would catch the

flame, the odour." Moore, enraptured of the young May moon, gave it out that the best of all ways to lengthen our days is to steal a few hours from the night. But pilfering of this kind is, as we have said, injurious to health. Leigh Hunt was right when he said that sleep is best before midnight. He who burns the midnight oil is rarely one who rises with the lark, and lying late in the morning is never found in company with longevity. Besides, it tends to create corpulence. Weak eyes and weary heads likewise follow nocturnal indulgences such as are the delight of the student. But remonstrances, forsooth, avail little. There is a fascination about midnight study and midnight composition more potent than the alarmist's note of warning, and authors and students will probably continue to yield to its spell until authors and students are no more.—*Globe.*

A SON OF DR. ARNOLD.

There was a time, and that not very long ago, when an elementary teacher was almost invariably represented as sitting at a high desk with a snuff-box in one hand and a birch in the other. Happily those days are gone for ever. The noble work of teaching the truths of nature and art has been confided by the State to a great body of well-trained men and women, whose success or non-success has to be tested by Her Majesty's Inspectors of schools. The duties of a school-inspector are not light. The task of pumping out from the juvenile mind the knowledge which, as a rule, teachers so laboriously pump into it, is very far from light, and not always agreeable. Again, an inspector's life is somewhat of a vagrant one. His work lies here to-day, there to-morrow, and anywhere else within thirty or forty miles the day after. The Education Department does all it can to group the schools, but long and tiresome journeys cannot always be avoided. The life of an inspector is not only erratic physically; it is so mentally, if the work is to be properly done. He has much to try his patience both in the school and out of it. One day he is the guest of a High-Church parson who detests the whole system, and would like to pull down the Cowper-Temple clause, and stamp on it before the inspector's eyes; then he finds himself face to face with a pronounced Evangelical who wishes to devote a good portion of the time-table to his own peculiar views; while the very next day, perhaps, he has to listen to a long tirade from a red-hot Liberationist. A go-ahead Radical treads on the heels of a dogged Conservative. To-day he dines with a Russophobe, to-morrow he hob-nobs with a Russophile. In short, he comes into contact with all sorts and conditions of men, from the stupid clown who drives him across country, and perhaps upsets him in the ditch, to my lord the Bishop who drops into the school he is going to inspect, and then asks him

to dine at the Episcopal palace. When the inspection is over, he has to listen to all opinions and mildly agree; and perhaps all the time the host and his family are wondering for what reason on earth the Education Department sent such a person to examine the school and give as little grant as possible.

When the newspapers of April 8th, 1878, announced that the Rev. Edward Penrose Arnold, M.A., one of Her Majesty's Inspectors of Schools, had died at Fox How, Ambleside, on the previous Saturday, there were hundreds of persons in the West of England who felt they had lost a dear, true friend. The news of his death came with painful surprise to many who were hoping to see his manly form and shrewd intellectual face among them for years to come, in the busy towns and delightful villages of the Devon he loved so well. His friends, among whom he placed the teachers of the schools he was in the habit of visiting, naturally expected that his illness would not prove fatal; for he was only fifty, and although he had once before been obliged to relinquish his work for a while, still he had come back again, and it was fondly hoped that rest and the care of his loving friends in the north would soon restore him to his labours. But it was otherwise ordered. His painful illness ended in death, to the deep regret of all who had known him as one of the ablest and truest friends of elementary education this generation has known. For eighteen years he had been almost daily in the habit of showing the managers and teachers of public elementary schools in Devon and Cornwall what education really means, and all who were brought into contact with him were accustomed to regard his advice as the very best they could get. His decisions on educational matters were always valued as the deliberate conclusions of a man who thoroughly understood what he was about. It is not too much to say that Edward Penrose Arnold was one of the ablest examiners we have ever had in England. Himself the son of a famous schoolmaster, he loved education as the great means of bettering the condition of his humbler countrymen and countrywomen, both spiritually and socially. He was emphatically a friend of the working classes. He will long be remembered in the West of England, not merely as one of the brightest ornaments of intellectual society, but as a frank and manly advocate of whatever tended to improve the condition of his humbler neighbours. Like his more distinguished brother Matthew, he laid great stress on conduct. He loved truth and nobleness, and he invariably went into the schools not merely for the purpose of testing what had been done since his last visit, but with the far nobler aim of doing good. It is not a difficult task to set a few sums and see that the children are not copying while they work them. Persons with no particular amount of learning might easily hear a class of children read, or ask them a few questions on the Geography of England. And as for the fault-finding, it is one of the easiest things in the world. Anybody can do it. It is very easy to

write to "My Lords" in Downing Street, and say something like this:—"The children in this school are very backward. Very few of them did their sums right, and not one in the fourth standard knew how to spell 'unique.' More vocal music must be taught, and nobody must whisper next time I visit the school."

Mr. Arnold was among those who hailed with delight the passage of his distinguished brother-in-law's great measure through Parliament in 1870, and he was likewise among the very many thoughtful people in England who are beginning to find out that our methods of instruction are somewhat too mechanical. But this is the fault of the Code, and not of Mr. Forster's Act. No one knew better than Mr. Arnold the utter impossibility of England being properly educated under the voluntary system. When he began his successful career as an inspector of schools, the whole of the great County of Cornwall formed a part of his district, and he had ample opportunities of seeing what kind of thing elementary education was in Cornwall. If he had kept a diary and given to the world the impressions of the clerical life with which his duties brought him into contact, we should have had some capital stories, for Mr. Arnold possessed a fine sense of humour. He could have told us many a racy anecdote of parsons, whose "school" consisted of a dozen wretched little children, sitting on rickety forms in ruinous old rooms with stone floors. Very few Western parsons at that time cared to see the Government Inspector in their parishes. Their schools were very much like their congregations, and the poor little boys and girls were sent into the fields or mines, when they ought to have been under the care of a mistress in a well-appointed infant-school. But those of the clergy who thought fit to place their schools under inspection found in the tall gentleman whose kindly grey eyes surveyed the assembled boys and girls, not merely an examiner who thoroughly understood his work, but a noble Christian scholar, who, while never forgetting that it would be wrong to give the public-money to badly conducted schools, always gave both teachers and scholars a fair opportunity for doing their best. There were about him none of those contemptuous airs which have recently led the Education Department to remind the inspectors, as a body, that it is not their duty to find fault with teachers. Every child who listened to him knew what he was saying, and the pupil-teachers, at their annual examinations, had no reason to complain of the manner in which he read their dictation to them, for very few men in England know how to read a passage of prose or poetry better than he did. And then it was delightful to hear him questioning a class of children on the Scriptures. Of course he did not do this during the latter years of his life, for it was no longer a part of an inspector's work. But previous to 1870, when the State allowed the inspectors to test a child's knowledge of the Bible, it was a treat to hear him briefly expound the broad doctrines of our common Christianity to a backward class. And

then how he loved children, and entered into their joys and sorrows! He would pat them on the back and joke with them after he had plucked or passed them, as the case might be; and, great strong-looking man as he was, he did not think it beneath his dignity to make fun for a gallery of infants. All these things, trifling as some may count them, showed the good-nature and deep sympathy of the man. Although he was in the habit of seeing so many thousands of children's faces in the course of his official visits, yet he frequently asked after individual scholars, and he has often been known to go into miserable streets and alleys, after he had finished an examination, for the purpose of visiting some poor sick child who was unable to be present at the school. Throughout his long and suffering illness he never ceased to think with affectionate interest of the teachers and scholars amongst whom he had so long lived and laboured. In the extreme weakness of his closing days, he sometimes seemed to fancy himself in the schools speaking to the children. They were with him to the last, and, although his sorrowing friends were not always able to distinguish all he said, they know he was talking to the little ones. Teachers and others who deeply respected the man have done their best to perpetuate his memory by founding the "Arnold Memorial Scholarship" for pupil-teachers who distinguish themselves at the examinations for admission into the Training Colleges.

He was anything but an easy-going examiner; he did his duty firmly and conscientiously; but it is not too much to say that he was universally beloved by the masters and mistresses who came under his notice during the eighteen years he spent as an inspector of schools. That long period produced many changes in the elementary education of this country, and the life and influence of such a man cannot but be interesting and instructive to all who care for the welfare of our race. He was not a distinguished poet and critic like his brother Matthew, who still lives to delight and instruct English readers; but he carried into society, and to his work, that fine cheerfulness of life and nobleness of manner which he began to learn at the feet of his famous father at Rugby, and perfected at Oxford. He was a true son of Balliol. You saw the influence of the teaching of the great college in all his life, and, although he was not famous in the sense that his brother Matthew is famous, Edward Penrose Arnold was a noble worker in a great cause.—*W. Soleman.*

MAHOMEDAN EDUCATION IN BENGAL.

The Mahomedan community in particular, and the whole of the native community in general, ought to be very much indebted to Moulvi Syud Amir Hossein for his short but effective pamphlet on "Mahomedan Education in Bengal," a copy of which lies on our table. The subject is pregnant with the good or ill of a consider-

able portion of our fellow-citizens, and the way in which the subject has been treated in the pamphlet before us shows clearly that the Syud has devoted his time and attention to it, and not written with the mere object of securing notoriety amongst his co-religionists.

It is a lamentable fact that notwithstanding the greatest efforts of successive Governments to infuse into the Mahomedan community the light and life of Western education and civilization, those efforts have been only partially successful. The number of educated Mahomedans in the higher ranks of the Government service is notoriously small, and if it were necessary to demonstrate the fact, we think that the author has done so successfully by appending to p. 26 of his pamphlet the following extract from the Bengal Civil Service list corrected up to 1st April 1880 :—

Designation of Office with pay.	Number of Hindoo Incumbents.	Number of Mahomedan Incumbents.
Additional Judgeship and Civil Service under the Law of Parliament of 1870 ...	4	...
Sub-Judges of 1st Grade at Rs. 1,000 per mensem ...	4	1
Sub-Judges of 2nd Grade at Rs. 800 ...	10	...
„ „ of 3rd „ at „ 700 ...	8	1
„ „ of 4th „ at „ 600 ...	14	1
Munsiffs of 1st Grade at Rs. 400 ...	26	4
„ of 2nd „ at „ 300 ...	68	8
„ of 3rd „ at „ 250 ...	74	8
„ of 4th „ at „ 200 ...	38	...
Deputy Magistrate and Collector of 1st Grade at Rs. 800 ...	...	1
Do. do. of 2nd Grade at Rs. 700 ...	4	...
Do. do. of 3rd „ at „ 600 ...	9	2
Do. do. of 4th „ at „ 500 ...	22	6
Do. do. of 5th „ at „ 400 ...	30	3
Do. do. of 6th „ at „ 300 ...	41	3
Do. do. of 7th „ at „ 200 ...	60	11
Do. do. of 8th „ at „ 150 ...	24	6
Special Sub-Registrars	15	3
Total...	451	58

How is this stubborn fact to be explained? Not by the indifference of Government to the reasonable demands of the Mahomedan community to a fair and legitimate share in the offices of the State, but as the Moulvi very properly puts it:—"The real cause of this unhappy state of things is to be found in the backwardness of the Mahomedans in adapting themselves to the requirements of the times and in thus remaining behind in the race of competition with other nations."

The whole subject has been divided by the author into three

parts:—(1) A short outline of the discussions and agitations which culminated in the policy adopted by Government in 1873-74; (2) The working of the several Madrassas since their re-habilitation in that year, and how far it has been for the benefit of the Mahomedans; (3) What reforms are needed to secure the desired ends. We will not trouble our readers with a detailed exposition of the first. It is sufficient for them to know that the funds which the Lieutenant-Governor has at his disposal specially for Mahomedan education are as follows:—

Grant to Calcutta Madrassa and its attached school Rs. 38,000; Mahomed Mohsen's educational endowment Rs. 55,000; total Rs. 93,000; and these funds were in 1873-74 allotted as follows:—

Calcutta Madrassa	35,000
Hooghly Madrassa	7,000
Cost of establishing a new Madrassa at Dacca	10,000
Do. at Chittagong and Akyab	14,000
Various further expenses including scholarships	11,800
Grants to nine Zillah schools, viz., Jessore, Rajpore, Bogra, Pubna, Furridpore, Backergunge, Mymensingh, Tipperah and Noakhally	7,200
Assignment to meet the cost of paying two-thirds of the fees of Madrassa boys who may attend at the Presidency, Hughly or Dacca Colleges or collegiate schools, or at the Rajshaye or Chittagong schools or Law classes ...	8,000
	93,000

In the second part of his pamphlet, our author gives a very careful but short analysis of the working of the several institutions which were established in 1873-74, including the old institutions at Calcutta and Hooghly. The result is expressed in these words:—"From the statistics supplied by the educational reports, there is hardly any room for questioning that the Hooghly, Chittagong, and the Rajshaye Madrassas have proved failures, the first a total, and the second and third a partial failure. It would be simply a waste of money to continue these institutions on their present scale." We shall only add that the figures quoted by the author, fully warrant the conclusion.

The third portion of the pamphlet is no doubt the most material; and, after carefully going through the several proposals made by the Moulvi, we think that if they are, as he assures us at the end of his pamphlet, to be "the outcome of the present feeling of Mahomedans on the subject of the further improvement of the scheme of Mahomedan education, so that their co-religionists may have a better opportunity than they at present have of recovering the lost ground, &c.," they deserve the serious consideration of the educational authorities.

* These proposals are as follows:—

"I would propose the establishment of an English College, teaching

up to the B. A. degree, in the Mahomedan quarter of Calcutta, for the benefit of a daily growing class of Musulman students. The Presidency College is no doubt a Government Institution, and Mahomedan students are at liberty to join it; but it is situated in a quarter essentially Hindu, and is so far removed from the Mahomedan quarter, that none but rich Mahomedan students who can afford to pay about Rs. 20 for conveyance, can avail themselves of the benefits of that institution. I think, if the proposed Mahomedan English College be established, the additional charge can be easily met by transferring to it the assignments now made to certain colleges from the Mohsin Fund for Mahomedan students who may study therein, as also by the large savings which would be effected by reducing the existing establishment of the Chittagong, Rajshahye, and Hooghly Madrassas as proposed in the preceding paragraph.

As far as I understand, there is a general cry on the part of Mahomedan students who pass their matriculation examination in Calcutta and mofussil schools for a Mahomedan College of the kind; and if the Anglo-Mahomedan College at Aligarh, with its limited income of Rs. 22,000 a year, can afford to maintain higher classes teaching up to the F. A. standard, with a European Principal, Bengal with its 93,000 Rupees devoted exclusively to Mahomedan education can rightfully claim to have a Mahomedan English College at the seat of Government. Roughly speaking, a sum between Rs. 50,000 and Rs. 60,000, out of the Rs. 93,000, would cover the cost of maintenance of the proposed College. The remaining sum would be ample to meet the educational requirements of the mofussil. No expense need be incurred for any new building for the proposed Mahomedan English College, as I think it can, with certain arrangements, be accommodated in the existing Calcutta Madrassa building. To make accommodation for the proposed College classes, I would propose that the lower classes of the Calcutta Madrassa up to the fourth class should be altogether transferred to the Colinga Branch School, which should be converted into a Middle Class English School, and be called the "Calcutta Madrassa Lower Department." I do not hesitate to propose this amalgamation of the Lower Department of the Calcutta Madrassa with the Branch School, inasmuch as the original object for which a separate Branch School was established, namely, to keep apart boys of lower status from those of respectable classes, has altogether vanished, and the practice of admitting into the Madrassa only the sons of respectable persons has for many years past been totally discontinued.

I would propose better and more decent provision for the Boarding establishment of Mahomedan students in Calcutta. At present in the Calcutta Madrassa certain students are called "boarders;" but I submit that it is a total misapplication of the term to call them so. I am told that the Madrassa authorities never regulate or give a thought to the messing arrangements of the so-called boarders.

each of whom has to make his own arrangement for his boarding; some get their food brought from outside every morning and evening, and others go outside the Madrassa precincts to have their daily meals. I think measures should be adopted to save the students the trouble of making their own messing-arrangements, and thus afford them greater ease of mind to attend to their studies. For this purpose a boarding-fee should be levied from these boarders, as is done in the other Madrassas and in the Anglo-Mahomedan College at Aligarh.

I would recast the curriculum now in vogue among the students of the Arabic Departments of the Madrassas. At present their heads are too much crammed with grammar and verbal subtleties, and their intellectual energies uselessly absorbed by the niceties of the Aristotelian Logic and Philosophy. The Arabic students are generally remarkable for a want of accuracy, precision and order, and to remedy this defect in their character, Mathematics should be made compulsory in the system of their education. And to counteract their narrow and discarded ideas of men and things they should be taught the truth of Chemistry, Physics, &c., but instruction in these subjects should be imparted through Urdu. At present very few of such scientific primers exist in Urdu, but I am sure that if a demand were created for such books, they would be easily forthcoming.

But the greatest, and, in my humble opinion, most important change that I would propose to be introduced into the Arabic department, is that English literature at least should be made *compulsory*. A man must be sure of getting his daily bread before he can enjoy literature or science. Now, the students, who are turned out by the Arabic Departments, live in the majority of cases, in a way which is anything but respectable or comfortable. The late Earl of Mayo in framing his memorable Resolution avows that his object is to provide Mahomedans with "advantages both material and social." As a matter of fact such advantages cannot now-a-days be had without English education. The eyes of my countrymen are being gradually opened to this fact, and many Arabic students, who have become too old now to begin acquiring English anew, speak with regret of their not having learnt English betimes. I dare say that if Government made a move in this direction, it would in the long run succeed, though at first it might disturb the equanimity of a small section of my co-religionists.

The principal and the teachers might be directed to pay some attention to the *morals* of the students. As a matter of fact the formation of their *character* is now totally neglected. The business of a teacher is not only to give *instruction*, but also *education*, i. e., their duty is not merely to provide their pupils with literature and science, but to instil into their young and susceptible hearts principles of morality. For this purpose I would have for principal a man who can live in the institution and who can devote his time to looking after his youthful charges, and a man who (to quote Sir

George Campbell's words setting forth the qualification of a Principal) " is fitted to lead, to influence, and to discipline youth."

These proposals have this further recommendation that they do not " involve the outlay of a single rupee from the public exchequer, but merely are re-distributions and re-adjustments of the large sum of Rs. 93,000, already endowed and set apart for Mahomedan education,"—and as such, we commend them to the consideration of His Honor the Lieutenant-Governor and of the Director of Public Instruction.

We would close this brief notice with one word of advice to the author. Let him try to have his scheme backed by a memorial from as many of his co-religionists as fully sympathize with his views, and, we have no doubt, the project will have a very fair chance of success.—*Brahmo Public Opinion.*

AGRICULTURE IN MADRAS.

A practical paper was read in the Indian Section of the Society of Arts, London, on May 7th, by W. R. Robertson, Esq., M.R.C.A., Superintendent of the Government Farm at Saidapet, on " Agriculture in the Madras Presidency." Sir William Rose Robinson, K.C.S.I., was in the chair. The lecturer began by describing the physical geography of Madras, a province which is larger than Great Britain and Ireland together; in the east and south flat, with a few low ranges of hills, but inland and northward consisting of extensive uplands, which rise to 1,500 and 2,000 feet, and on the west bordered by high mountain-ranges following the coast-line. The general slope of the country is towards the east, the large rivers therefore flow into the Bay of Bengal. The lower lands have a tolerably good alluvial soil, but inferior soils formed from the decomposition of the quartz rocks of the minor ranges of hills, prevail the most extensively in Southern India, and these are very unproductive in bad seasons. The temperature is always high throughout Madras. On the higher mountains, however, the climate is less oppressive, and tea, coffee, and cinchona are cultivated.

There are three kinds of land tenure prevalent in the province:—(1) *Zemindari* tenure,—extensive estates and subject to a fixed annual payment to the State, rented by the Zemindar to the tenants, usually tenants-at-will, about twenty-one million acres in all; (2) *Inam* tenure, land granted in recognition of services, and held subject to a nominal quit-rent, eight million acres; and (3) the (more general) *ryotwari* tenure, where the tenant holds directly from the State, and continues to hold his land as long as the rent, which is fixed by the rent-settlement department, is regularly paid, the annual rent generally representing half the net produce of the land. About fifty-five millions of acres are of this kind of tenure. Mr. Robertson considered that the present rent-settlement rules do not tend to encourage good farming, because an improving tenant is

not sufficiently protected. The worse a man farms, and the worse crops he raises, the lower is the rent charged. The lecturer urged that the rent should be estimated "in reference to the value of the produce the land will yield when fairly well farmed." He also thought that as the right of occupation can be bought and sold, the interest on the purchase-money should be allowed in fixing the rent. In regard to the land-revenue department, he suggested that a knowledge of agriculture should be required of all its officers before they enter the service. Many of them do possess a fair knowledge of the subject, but as this is not compulsory, there are others who are by no means so useful as they might be "in advising and encouraging improvements in agricultural practice." A year at the Royal Agricultural College (Cirencester), in the probationary period of training, would be of great value. For the Forest and Engineer Departments a special training has already been arranged, with State allowances, for approved candidates.

In his remarks on methods of cultivation, Mr. Robertson stated that, in spite of all that has been done, 80 per cent. of the occupied land is still without irrigation. Where the rainfall is good, some of the unirrigated land is tolerably productive, but the bulk of it is poor, "so poor, indeed, that no person who has not a personal knowledge of it can form a proper conception of its extreme poverty. Much of the land could be cultivated only by a race whose houses can be built for a few shillings each, who can be clothed for five shillings a head, and who, when necessity arises, can starve themselves down to, and exist on, a single meal a day." It is not so much from a deficiency of rainfall that agriculture suffers, as from its uncertainty. In one month drought and flood often succeed each other. Tanks have long been largely employed in Madras for irrigation. They are generally "formed by raising an embankment across the drainage line of a country, and running the banks up the slope on either side." Some of them are many square miles in area. Smaller ones are sometimes in natural hollows or basins. Tanks are of the greatest importance for storing the surplus rain of one period for use at other periods. At present a very large proportion of the water that thus falls is unutilised, and flows away into the sea. To store all the surplus rain would be impracticable, but a very much larger quantity might be stored than ever is now. The largest area in Madras is irrigated by rivers, but the smaller rivers are dry through several months of the year, and in the last twenty-five years, owing to the extensive clearings from jungle that have been made, the water runs off the land more quickly, and the flooded streams flowing with increased rapidity empty themselves sooner into the sea. The plan adopted for utilising the water from the large rivers is to form a dam at a place whence the water can be easily made to flow over the land in channels, with which sluices are connected. As the beds of the rivers slope gradually towards the coast, the arrangement of these dams is not difficult. The

channels for distribution of the water are often large, and extend for many miles. Mr. Robertson was of opinion that there is a lavish use of the water, and that the ryots should be restricted as to the amount that they use. The public health suffers from the swampy condition of the ground, and the soil becomes unfitted for any produce but rice. "It is by economising the water now available, and thus bringing a larger area of country under the influence of irrigation, that the most good can be achieved at once." With regard to the extension of irrigation, it is most desirable, if wisely planned; but the agricultural as well as the engineering aspects of the projects submitted for approval should be carefully taken into consideration, for it is owing to the neglect of the agricultural side of the question that much failure has resulted.

The holding of a ryot is not fixed as in England, but it may be changed, if land is available, almost at the ryot's will. He does not make permanent erections on his farm, and his fences are not of much value, nor does he carry out improvements on unirrigated land, so he is "unfitted by the considerations which, in more civilized lands, compel farmers to confine the operations to fixed areas of country." It appears that it is this continual change of site which has made it possible for the ryots to support themselves in spite of their rude husbandry. They have constantly given up exhausted land for fresh. But lately their power of moving about from one site to another has become restricted, because a larger area has been brought into cultivation. The soil, therefore, not having time to recover itself, is becoming less fertile. In another way, too, the same cause operates. More land being cultivated, the extent of free land for the grazing of cattle is lessened, so good manure is not so readily obtainable. Thus the greatly increased area now under cultivation is not looked on by Mr. Robertson as a ground for congratulation as it is by some.

Everything points to the importance of an improved system of agriculture. The ryots now till the land only to the depth of four inches, and with very rude ploughs, which, owing to their imperfect construction, need to be taken two or three times over the land before the soil can be fully moved, and then it is only loosened instead of being turned. Mr. Robertson calculated that the cost of labour, implements, &c., for moving 1,000 cubic yards of soil by means of the native plough is 4*s.* 5*d.*, and that by means of a modern plough, under similar conditions, it is 2*s.* 7*d.* Thus in the latter case the work would be done at 40 per cent. less cost. Nothing would improve native agriculture more, the lecturer said, than the general use of modern ploughs. They can be made as portable as the circumstances of the country require, their management can be readily learnt, and with a little training, native smiths can well effect the repairs. At Saidapet, Madras (the Experimental Farm), "upwards of 200 acres have been worked for the past ten years by these ploughs, each is drawn by a pair of oxen, and driven by a

single native ploughman." The expense of the modern plough is doubtless a difficulty, but "thousands of ryots could meet it," and as one modern plough would do twice as much work as two of those now used, these two could be sold for the one without extra expense being incurred, while the hire of one man and the food of one pair of oxen would be saved. At Saidapet, native smiths have learnt how to make the modern plough as well as to repair it.

Mr. Robertson spoke of other defects in the ryot's system of farming, as neglect of manures, exhaustive cropping of the land, &c., and he urged that measures should be taken to enforce the planting of trees. "No expense need be incurred in growing the trees, the expenditure of a little labour is all that would be needed, and this at the season of the year when there is but little field-work that demands attention. If India is poor as regards money, she is rich in an abundance of labour, and it is this, properly applied, that is needed so greatly for the development of her resources." The planting of trees would improve the climate, and afford shelter to cattle from the fierce sun, and from the chilly winds that occur during "the rains," besides supplying fuel. Under an improved system of farming wheat might be more largely cultivated than at present, and tobacco more advantageously grown.

The lecturer concluded as follows:—"I have endeavoured to point out some of the difficulties under which agriculture is practised, and have indicated some of those that appear capable of removal, or of such modification as would, in my opinion, render them less injurious in their action. I have dwelt very fully on the shortcomings of native agriculture; it would have been a far more pleasing duty to have pointed out some of its good points—for there are some—but the demand for reform is far too urgent to allow of time and opportunity being employed in any other way than in an endeavour to aid in getting these reforms instituted."

The Chairman said that every one interested in India must be much indebted to Mr. Robertson for his very suggestive paper. He considered, however, that more progress had been made in the last twenty-five years than the lecturer allowed, and he did not agree with some of his views as to the nature of land tenure. A discussion on the paper followed, in which Colonel Rathborne, Sir Charles Trevelyan, Mr. C. Akilandaiya, and Dr. Voelcker took part, the last named gentleman urging the importance of enabling Indian civilians to qualify themselves in the study of agriculture. "Quite recently he had been in communication with the Principal of the College at Cirencester, and he was going to impress upon him the desirability of instituting a special course of lectures for men who might be intending to go out to the colonies, and especially to India, because he knew, from his own experience in the coffee plantations of Malabar, where he was the first to introduce experiments some thirty years ago, how much could be done to improve Indian agriculture."—*Journal of the National Indian Association.*

BOOKS RECEIVED.

The Editor acknowledges with thanks the receipt of the following publications :—

1. Drew's Geometrical Treatise on Conic Sections, translated into Marathi by Nárâyan Sadáshiv Kulkarni, Sanskrit Tutor, F. G. A. V. School, Kalyan.
2. Report on Public Instruction in the Madras Presidency for 1877-78.

   Ditto ditto for 1978-79.
3. Journal of the National Indian Association for August and September 1880.
4. The Bengal Magazine for August 1880.
5. The Madras Journal of Education for August and September 1880.
6. The Theosophist for September 1880.

☞ *The Editor invites communications on subjects connected with Education, and also contributions of Educational Intelligence in the shape of reports of meetings, school examinations, &c., from all Officers of the Department, and from other persons interested in Education. Schoolmasters in particular are invited to make free use of the correspondence columns of the "Record" for the interchange of experiences, and the mutual elucidation of difficulties connected with the management of their schools. It is hoped, too, that students will avail themselves of the opportunities offered by the "Record" for the discussion of points of scholarship in Philology and Mathematics, and the communication of "Notes" on their various subjects of study.*

GOVERNMENT CENTRAL BOOK DEPÔT.

LIST OF NEW BOOKS RECEIVED IN THE GOVERNMENT CENTRAL BOOK DEPÔT, BOMBAY, FROM 16TH AUGUST TO 15TH SEPTEMBER 1880.

New Editions published.

GUJARATI.	Rs.	a.	p.
Hope's Departmental First Book, stereotyped	0	1	6
Lalshankar's Arithmetic	0	8	0

SANSKRIT KANARESE.			
Sanskrit First-Book, translated into Canarese.....	0	12	6

DEPARTMENTAL NOTICES.

Books Sanctioned.

NOTIFICATION.

THE following books are sanctioned for use in Vernacular Schools and as Library and prize books.

MARATHI.

भूवर्णन.—(Physical Geography from MacMillan's Science Primers), by Rao Saheb K. B. Marathé.

नीतिमंदिर —(Mansion of Morality), by Mr. Govind Shankar Shastri Bapat.

महन्मणिमाला.—(Readings in Biography), by Mr. V. K. Oké.

GUJARATI.

रसायनविद्या.—(Chemistry from Macmillan's Science Primers), by Rao Saheb Mahipatram Rupram.

भूतत्वविद्या.—(Physical Geography from Macmillan's Science Primers), by Rao Saheb Mahipatram Rupram.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
6th September 1880.

Book Sanctioned.

NOTIFICATION.

A new Gujerati book, styled "Mana Sudharak Suchana" (Hints for the Improvement of the Mind), by Mr. Manishankar Parbhuram Pandit, is sanctioned for use in schools as a Library and prize-book.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
8th September 1880.

Gilchrist Scholarship Examination.

NOTIFICATION.

The Latin and Greek subjects for the Gilchrist Scholarship Examination for January 1882 are:—

Latin—Horace, Odes, Books I. and II.

Greek—Xenophon, Anabasis, Book VI.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
9th September 1880.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM THE 16th AUGUST TO 15th SEPTEMBER 1880.

16th *August* 1880.—Six months' leave on private affairs is granted to Mr. S. R. Kirloskar, Third Assistant Master (Marathi side), Elphinstone High School.

18th *August* 1880.—Seven days out of the six weeks' sick leave granted to Mr. Lad, Eighth Assistant Master in the Satara High School, are cancelled.

23rd *August* 1880.—Mr. Sayed Jonamuddin Ahmed Molvi is appointed (on probation) Hindustani and Persian Teacher in the Nasik High School.

23rd *August* 1880.—Mr. Sakharam Amrit Palshikar is appointed on probation Second Assistant Master, First Grade Anglo-Vernacular School, Pandharpur.

24th *August* 1880.—Two months' leave on private affairs is granted to Mr. Krishnalal G. Mehta, Sub-Deputy Educational Inspector, Jalawad Prant.

24th *August* 1880.—Mr. Ganesh Krishna Joshi is appointed Sanskrit Teacher, Kalyan English School.

25th *August* 1880.—Mr. Sadanand Trimbuck Bhandári, F.E.A., is appointed Acting Third Assistant Master, Elphinstone High School (Marathi side), during the absence of Mr. Kirloskar, or until further orders.

26th *August* 1880.—Mr. V. S. Deodhar, Fourth Assistant Master, Tanna High School, is appointed Acting Third Assistant Master in the same school.

26th *August* 1880.—Mr. N. S. Mahajan, Fifth Assistant Master in the Tanna High School, is appointed Acting Fourth Assistant Master in the same school, *vice* Mr. Deodhar promoted.

26th *August* 1880.—Mr. R. V. Subnis, Third Assistant Master in the Tanna High School, is appointed Acting First Assistant Master in the Dhulia High School, *vice* Mr. Sanjana.

30th *August* 1880.—Mr. R. V. Gadré, Third Assistant Master in the Nasik High School, is appointed Acting Second Assistant Master in the same school, *vice* Mr. Joshi, promoted.

30th *August* 1880.—Mr. G. G. Yevalekar, Fourth Assistant Master in the Nasik High School, is appointed Acting Third Assistant Master in the same school, *vice* Mr. Gadré, promoted.

30th *August* 1880.—Mr. Govind Ahaji Shawalé, is appointed Acting Fourth Assistant Master in the Nasik High School.

31st *August* 1880.—Mr. D. N. Malbagal is appointed Sixth Assistant Master in the Dharwar High School for the month of August 1880.

4th September 1880.—Leave without pay, from the 16th September to the 9th December 1880, is granted to Mr. B. H. Kulkarni, an Assistant Master in the Rajaram High School, Kolhapur.

4th September 1880.—Mr. Vishnu Dhondoo Bhagvat, Fifth Assistant Master (Lower Division), Rajaram High School, Kolhapur, is appointed substantive *pro tem.* Fourth Assistant Master in the same school, *vice* Mr. Kulkarni, on leave.

4th September 1880.—Mr. Sitaram Pandurang Renavekar is appointed substantive *pro tem.* Fifth Assistant Master (Lower Division) in the Rajaram High School, Kolhapur.

4th September 1880.—Mr. Vamanacharya Jhalkikar is confirmed in the appointment of Second Assistant Sanskrit Teacher in the Deccan College.

4th September 1880.—Mr. D. B. Jatar, B.A., is appointed First Assistant Master in the Poona High School.

7th September 1880.—Mr. H. B. Vania, B.A., substantive *pro tem.* Second Assistant Master in the Kathiawar High School, is appointed Fourth Assistant Master in the same school.

8th September 1880.—The unexpired portion (from 1st to 14th September 1880) of the three months' leave without pay granted to Mr. Nagindas L. Dalal, Tenth Assistant Master, Surat High School, is cancelled.

8th September 1880.—Mr. Balchand Tarachand, Head Master, Anglo-Vernacular School, Sehwan, is appointed Head Master, Anglo-Vernacular School, Kotri.

8th September 1880.—Mr. Tirathdas Kismatrai, Head Master, Anglo-Vernacular School, Kotri, is appointed Head Master Anglo-Vernacular School, Sehwan.

14th September 1880.—Mr. B. A. Bhagwat, B.A., is appointed substantive *pro tem.* First Assistant Master, Kalyan English School.

15th September 1880.—One month and eight days' leave without pay is granted to Mr. Ramji Virji Bhat, Seventh Assistant Master, Fort Branch, First Grade Anglo-Vernacular School, Bombay.

15th September 1880.—Two months' leave without pay is granted to Mr. Govind Apaji Sahasrabudhé, Sanskrit Teacher, First Grade Anglo-Vernacular School, Pandharpur.

15th September 1880.—Mr. Vitbal Bhaskar Phadké is appointed substantive *pro tem.* Sanskrit Teacher in the First Grade Anglo-Vernacular School, Pandharpur.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
17th September 1880.

Bombay Educational Record.

No. 11.] NOVEMBER 1, 1880. [Vol. XVI.

THE MONTH.

THE Government Resolution on Mr. Chatfield's Report on Public Instruction for 1879-80 concludes with the following words:—

"The Governor in Council desires to express his satisfaction with the way in which the business of the Department has been conducted by the Director and his able subordinates. His Excellency in Council will take this opportunity of expressing his great regret at the loss which the Department has sustained by the retirement of Dr. Bühler, whose zealous labours have done so much to lay the foundation of a sound popular education in Gujarat, while he has no less distinguished himself by his successful exertions in the collection of some thousands of manuscripts in Central India, Rajputana, the Punjab, Kashmir, &c., as well as in this Presidency; in the preparation of standard works on Hindu Law and Literature, and in adding to the stock of philological and archæological lore. By his influence as a teacher in Government Colleges and Examiner in the University of Bombay, he has not only kept alive an interest in Sanskrit, but has extended the study of that language, and raised the standard of Oriental scholarship throughout the west of India."

THE French Minister of Public Instruction has ordered a special edition of Mr. Herbert Spencer's work on Education to be published, and all scholastic libraries and associations are to receive a copy of it gratis on application. The disparaging remarks on classical learning have, with the author's sanction, been omitted from this edition.

A LONDON newspaper makes the following remarks on the pronunciation and spelling of proper names:—

How to pronounce a proper name is often a matter of difficulty. It might be presumed that the way in which a man pronounces his own name, or the people of a place pronounce the name of their town,

ought to be a guide. But there is, in the first place, the difficulty of ascertaining what that is. It is not everybody who knows that the name of Lord Cowper is pronounced Cooper, that Marjoribanks is Marchbanks, that Cholmondeley is Chumley, that Belvoir Castle is Beever, and that Bicester is Bister. Everybody, however, acquainted with the local or personal usage would conform to it. With ancient or foreign names the case is different. A discussion is now going on in a contemporary as to how Indian names, for instance, should be spelled. One party is in favour of retaining the form which has obtained European currency. Another advocates a transliteration or conversion of the native symbols into English equivalents, and would spell Lucknow "Lakhnao"; Cawnpore, "Kanhpur"; and Poonah, "Puna." And what is now taking place with respect to Indian proper names has long since occurred in the case of classical and early English. Mr. E. A. Freeman and his philological friends would call Edward the Confessor "Eadward," just as a Greek purist would speak of Hercules as "Herakles," and Plato as "Platôn." The question to be decided is this:—Ought we to be governed by usage, or by the decisions of abstract scholarship? The French do not wait to discuss the subject. They pronounce every name as they would do if it were French. Thus with them, Titus Livius, whom we name "Livy," becomes "Tite-Live," and Goethe, even in an official document issued by the French Academy, appears as "M. Gote." We suppose no hard-and-fast line can be laid down on the subject. Caprice has had much to do with the pronunciation of proper names. An educated Englishman would, for example, pronounce Rouen or Versailles as nearly as possible as a Frenchman would; but he would consider himself pedantic were he to pronounce Paris in the same way. The truth is, certain forms have crystallised and been consecrated by history; and whatever may be the case with new words seeking admission to the language, it would be as well that these forms should be retained.

The official Census-returns of the American cities on June 1, says *Progress*, show that the population of New York was 1,209,561, an increase in ten years of 234,269; Philadelphia, 847,432, an increase of 173,430; Brooklyn, 554,696, an increase of 159,594; Boston, 352,000, an increase of 101,474; Baltimore, 331,000, an increase of 63,616; Chicago, 477,500, an increase of 176,023; Cin-

cinnati, 246,131, an increase of 29,914; New Orleans, 207,328, an increase of 15,910; San Francisco, 227,350, an increase of 77,877; and Washington 160,000, an increase of 50,801.

The correspondence of all kinds—letters, post-cards, and book-packets—which passed through the London Post-office last year made up a total of 1,586,937,000, showing an average of 46 per head of the population. Upwards of 21,000 letters were posted without any address, of which 1,141 contained cash and bank-notes. No less than 4,500 letters and packets were stopped on account of the objectionable nature of their contents—such as frogs, lizards, insects, &c.

From recent statistics it appears that the following are the number of libraries and volumes at present existing in the various Continental countries of Europe:—

	Libraries.	Volumes.	Per 100 Inhabitants.
Austria...	577	5,475,793	26·8
France	500	4,598,000	12·5
Italy	493	4,349,281	16·2
Prussia...	398	2,640,450	11·0
Bavaria...	169	1,368,500	26·4
Russia	145	952,000	1·3
Belgium	105	609,110	10·4

Among the more prominent of the various libraries are the Bibliothèque Nationale of Paris, with 2,078,000 vols. and 86,000 MSS.; the Royal Library at Munich, with 800,000 vols. and 24,000 MSS.; of Berlin, with 700,000 vols. and 15,000 MSS.; of Dresden, with 500,000 vols.; of Vienna, with 420,000; of Copenhagen, 410,000. Paris itself possesses some very large libraries apart from the Nationale, viz., that of the Arsenal, 180,000; Mazarine Library, 150,000; the Institute, 80,000; the City of Paris Library, 52,000; while in the provinces are the libraries of Amiens, 42,000; Versailles, 41,000; Mans, 41,000; Montpelier, 40,500; Cambrai, 30,000; Toulouse, 30,000.

Professor E. C. Pickering, Director of Harvard University, has made an important discovery in stellar physics. In the ordinary

telescope a star appears as a point of light, brighter, but not larger than when looked at with the naked eye. When a prism is placed between the object glass and the eye-piece, the light of a star is drawn out into a continuous band. When, however, the telescope with the prism is directed to a planetary nebula, the light is collected into a star-like point without any band. Thus the astronomer can easily distinguish between a star and a planetary nebula. This principle has already enabled Professor Pickering to discover several nebulæ.

The Annual Report of the Inspector appointed to visit the certified Reformatory and Industrial Schools of Great Britain has just been published, and contains much interesting and useful information. The Report shows that while the population of the country has largely increased in the last twenty years, and adult crime has kept pace with this increase, juvenile crime has decreased to a considerable degree. Thus, while in England and Wales there were, in 1869, 10,314 offenders under sixteen years of age, the number has steadily decreased until, in 1879, we find only 6,810. When, however, we turn to the adult offenders, we come upon a very different state of things. In 1869, there were 163,240 commitments, a number which, in 1879, had increased to 165,843. In Scotland much the same result is shown. In 1869, 1,138 children were committed, in 1879 only 1,097; whilst adult commitments, which reached, in 1869, only 27,169, had jumped up, in 1879, to the great total of 43,878, or an increase in ten years of 60 per cent. Of the total number of boys discharged in the years 1876-78, 81 per cent. are reported as doing well, 4 per cent. as being doubtful, and 6 per cent. as having returned to evil courses. Of girls, 80 per cent. are prospering, 10 per cent. are doubtful, and of 9 per cent. nothing is known. The action of the School Board and the working of the Elementary Education Act of 1876 have led to a considerable increase in the number of children at the Industrial Schools. There were at the close of the year 1,030 children sent under this Act, while a large proportion of the commitments were due to the agency of the School Boards. Day Industrial Schools seem to do well wherever they have been established, and it is a question, the Inspector thinks, if any more Industrial Schools should be certified at present, at any rate in towns of any size, until the cheaper machinery of the Day Industrial School system has had a trial.

It is thought that such schools would answer in the majority of cases, and existing Industrial Schools would probably be sufficient to take the exceptionally incorrigible children, or those whose surroundings and homes point them out as unfit for the day schools. Only three Truant Schools are in existence, and these in London, Sheffield, and Liverpool.

The New University College of Bristol has the credit of being the first in England in which the higher education of women has been conducted on a large scale in conjunction with that of the men. Its calendar shows that in the last session—its fourth—the college was attended by more than 500 students, of whom nearly half were women. A wide range in science and literature is covered by the lectures, of which there are more than 40 distinct courses in the day and more than 20 in the evening. Its engineering department has derived great advantage from the plan under which the students spend the six winter months in the college, and the six summer months as pupils in engineering works in the neighbourhood. The want of space, which has hitherto pressed severely, will be relieved by the opening this year of a part of the new buildings. On the council of the college, besides many eminent citizens of Bristol, are the Master of Balliol and President of Trinity College, Oxford, Professor Henry Smith, and Professor Stuart. A valuable accession to its staff has lately taken place by the appointment to the office of Secretary and Registrar of the College of Dr. J. N. Langley, of Wolverhampton.

THE OXFORD INDIAN INSTITUTE.

The Oxford Indian Institute, for the establishment of which Professor Monier Williams has laboured during several years, was adopted by Convocation on the 1st of June of the present year, and a site in Oxford was granted. The scheme has now received a definite form, and we are glad to supply the following information from the latest prospectus as to the objects aimed at :—

The Institute will be devoted to the concentration and diffusion of an accurate knowledge of India and of subjects connected with our Indian Empire. It is intended to facilitate and encourage Indian studies of all kinds, and to promote more united and systematic action in their prosecution. The building will, therefore,

contain rooms for lectures on Indian subjects; a library of Indian manuscripts and books, which will also serve as a reading-room and be supplied with Indian periodicals and newspapers; a typical museum of objects illustrating the natural history of India and the religions and social life of its inhabitants.

Although a principal aim of the Institute will be to create and develop a taste and respect for Indian studies, it will give support and encouragement to every kind of Oriental research, and will be a centre of union and intercourse for all engaged in Oriental studies, whether teachers or learners. One of its chief objects will be to assist in drawing together the selected candidates for the Civil Service of India, who are now required to reside at a University, and to aid in restoring some of the *esprit de corps* formerly created by Haileybury. It will particularly aim at promoting the welfare of students from India, some of whom are already at Oxford, and will afford opportunities to Englishmen and Natives of India for better acquaintance with one another.

The Boden Professor of Sanskrit will be Director. His duties will be to direct the management of the Institute, and to watch over natives of India, who may be members of the University. The Council will consist of the Vice-Chancellor, all professors who lecture on Indian subjects, and other eminent persons to be appointed by the University. Four fellowships are to be conferred on deserving persons elected by the Council. An annual sum will be paid to each holder of a fellowship on condition of his publishing every year at his own expense a treatise throwing light on Indian studies or Indian literature. One of such essays ought to be an annual *resumé* of the progress of Indian studies in all countries. A large sum will be required for the Fellowship Fund, and contributions are earnestly requested.

Twelve honorary Fellowships are to be conferred by the Council on the most distinguished Oriental scholars of all countries. The University Professors of Sanskrit, Persian, and Arabic, the Readers in Indian Law and Indian History, the Teachers of Persian, Hindustani, Telugu, and Tamil, and all who lecture on Indian subjects are to have the use of lecture-rooms in the building.

Scholarships will be conferred on deserving persons elected by the Council. An annual sum will be paid to each scholar for proficiency in Arabic or some one of the spoken languages of India, Persian being one. Four scholarships already exist for the encour-

agement of the study of Sanskrit. Contributions towards the Scholarship Fund are earnestly requested.

A member of the Indian Civil Service has intimated a wish to found an annual prize for an essay on some Indian subjects. It is hoped that other prizes will be offered by the princes and patrons of learning in India.

The Institute is under the approval of Her Majesty the Queen Empress of India, and has many distinguished supporters in England and in India.—*Brahmo Public Opinion.*

THE ART OF EXAMINING.

1. The first and most important element of an examination is that it should test the pupil's knowledge of what he knows, not what he is expected to study out after the question is asked.

2. Questions should be so stated as at once to be clearly understood.

3. Answers should not be required in the exact words in which they have been learned; but freedom to use individual judgment and skill should be permitted.

4. A good degree of expedition should be required in answering questions.

5. An examiner should not turn aside to act in the capacity of a teacher. An examiner is not a teacher.

6. In an oral examination no indication should be given as to the correctness or incorrectness of answers given.

7. A thorough examination should be both written and oral. The methods in an oral examination should be more flexible than in written work.

8. Teachers should never indicate in what points their pupils may expect to be examined, nor should they so teach that pupils may be able to judge what subjects will be brought forward.

9. Reports of results should be made as soon as possible after the work is done. A long delay is discouraging.

10. The effect of a good examination will always be exhilarating to well-prepared pupils, and convincing to the unprepared ones.

11. Thorough, exhaustive, and probing examinations should not be too frequent. They should be looked forward to as great occasions to be especially prepared for, and resulting in important consequences.

Finally.—The teacher should be his own examiner. He knows best what has been studied and what ought to be known. A skilful teacher will be a skilful examiner. It is possible for an examination to be so conducted that even the best pupils will partially, if not entirely, fail. Good teaching demands a good examination.—*Barnes's Educational Monthly.*

NOTICE TO CORRESPONDENT.

T. D. M.—Declined with thanks.

☞ *The Editor invites communications on subjects connected with Education, and also contributions of Educational Intelligence in the shape of reports of meetings, school examinations, &c., from all Officers of the Department, and from other persons interested in Education. Schoolmasters in particular are invited to make free use of the correspondence columns of the "Record" for the interchange of experiences, and the mutual elucidation of difficulties connected with the management of their schools. It is hoped, too, that students will avail themselves of the opportunities offered by the "Record" for the discussion of points of scholarship in Philology and Mathematics, and the communication of "Notes" on their various subjects of study.*

BOOKS RECEIVED.

The Editor acknowledges with thanks the receipt of the following publications :—

1. Report of the Director of Public Instruction in the Bombay Presidency for the year 1879-80.

2. The Madras Journal of Education for October and November 1880.

3. The October number of the Journal of the National Indian Association.

GOVERNMENT CENTRAL BOOK DEPÔT.

List of New Books received in the Government Central Book Depôt, Bombay, from 16th September to 15th October 1880.

Fresh supply of the following books has been received from England:

ENGLISH SCHOOL BOOKS.	Rs.	a.	p.
Laurie's standard copy—Books Nos. I., II., III., V., and VI., each at	0	1	4
Chambers's Etymological English Dictionary	2	0	0
Potts's Euclid, Books I.—IV.	1	8	0
Morell's Analysis of Sentences with Grammar	1	4	0
Reid's Modern Geography	0	8	0
Chambers's Moral Class Book	0	12	0
Ogilvie's English Dictionary	3	12	0
Haywood's National Atlas	0	8	0
Routledge's Diamond Dictionary	0	8	0

MEDICAL BOOKS.	Rs.	a.	p.
Robert's Practice of Medicine, 2 vols	11	0	0
Gray's Anatomy	15	0	0
Macnamara's Diseases of the Eye.....	6	4	0
Meadow's Midwifery	5	4	0
Kirk's Hand-Book of Physiology	7	0	0
Fowne's Manual of Chemistry.....	2	4	0
DRAWING MATERIALS.			
Compasses for Geometry in cases with pencils, each at...	2	0	0
Drawing Boards do.	1	8	0
T Squares do.	0	8	0
Set Squares 45° do.	0	2	0
Do. 60° do.	0	2	6

New Books published by the Department.

GUJARATHI.

Mahipatram's New Grammar of the Gujarathi Language	0	2	0

New editions published.

MARATHI.

Oke's (V. K.) The Bee, or Madhumakshika. 2nd Edition.	0	10	0
Departmental Second Book Balabodha, 7th stereotyped Edition	0	2	6
Do. Fourth Book do.	0	8	0
Athlye's (J. H.) Shabda Sidhi Nibandha; or a Manual of Marathi Etymology, 7th Edition	0	2	6

GUJARATHI.

Bhogilal's Deshi Hisab; or Mental Arithmetic, Part II., 8th Edition.....	0	1	2

Government Publications.

MARATHI.

Arogya Vidyá; or Translation of the Sanitary Primer...	0	1	3

ENGLISH.

Selections from the Records of the Bombay Government No. CLIII.—Papers relating to the completion of the Survey and Settlement of the City of Broach	0	4	0
Bombay Gazetteer, Vol. V., Kutch, Palanpur, and Mahikantha.....	3	0	0
Do. do. Vol. VI., Rewakantha, Narukot, Cambay, and Surat States	2	4	0

N. V. BAPAT,
Curator.

DEPARTMENTAL NOTICES.

Stationery Indents.

No. 3345 of 1880-81.

Poona, Office of the Director of Public Instruction,
6th October 1880.

To THE EDUCATIONAL INSPECTOR,
Central Division.

SIR,—As Government require Indents for Stationery for your office and for offices subordinate to you, to be scrutinized before they are sent to the Superintendent of Stationery for compliance, I have the honour to lay down the following rules, to enable you to prepare your indents:—

(1) Indents for Stationery must be prepared on printed forms, which may be obtained at the office of the Superintendent of Stationery, Bombay, otherwise they will be returned uncomplied with.

(2) No articles will be supplied other than those mentioned in the printed form of indent.

(3) In an office for which a standard allowance of stationery has been sanctioned, that allowance only should be entered in column "Quantity authorized to be kept up."

(4) The authorized quantity should not be exceeded without the sanction of the Director of Public Instruction.

(5) The indents should be submitted to the Director of Public Instruction on or before the 1st of April in each year.

2. The supply of Fuchine is discontinued. Red ink may be obtained departmentally under recent orders of Government.

I have, &c.,

(Signed) R. M. CHATFIELD,
Director of Public Instruction.

Published for the information of Educational officers in the Central Division.

H. P. JACOB,
Acting Educational Inspector, C. D.

Poona, Office of the Educational Inspector, C. D.,
10th October 1880.

Erratum.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 21st September 1880.

No. 1206.—*Erratum.*—For the Sanskrit standards published on pages 598—603 of the *Government Gazette* of the 1st of July, substitute the following standards:—

Maximum Marks.

ANGLO-VERNACULAR SCHOOLS.

Standard IV.

(4 hours.)

40 (*a*) The common rules of Sandhi, the declensions of nouns substantive and adjective given in the 1st Book of Sanskrit (7th edition), and the special tenses of roots of the 1st, 4th, and 6th classes.

60 (*b*) *Viva voce* translation into the vernacular of the Sanskrit exercises in Lessons I.–XXVII. of the 1st Book of Sanskrit, and written translation into Sanskrit of the English exercises in the same lessons.

Standard V.

(4 or 5 hours.)

40 (*a*) Rules of Sandhi continued; declension of pronouns and pronominal adjectives; the special tenses of the roots of the remaining classes.

60 (*b*) *Viva voce* translation into English of the Sanskrit exercises in the remaining lessons of the 1st Book and in Lessons I.—XII. of the 2nd Book of Sanskrit (4th edition), and written translation into Sanskrit of the English exercises in the same lessons.

Standard VI.

(5 hours.)

40 (*a*) The more rare and the irregular declensions, comparison of adjectives, numerals; the perfect, the two futures, and the conditional (Dr. Kielhorn's Grammar, 2nd edition, §§ 1—330; 368—379); compound nouns.

60 (*b*) Translation into English of the Sanskrit exercises in Lessons XIII.—XIX. and Lesson XXIV., Part I., of the 2nd Book of Sanskrit, and of about 25 pages from the 3rd Book or from the Hitopadesa, and written translation into Sanskrit of the English exercises in the same lessons and of about ten short English fables.

EUROPEAN AND EURASIAN SCHOOLS.

Standards VI.—VIII.—The same as above, but under Standard VI. *also* one translation from Sanskrit into *English* (not Vernacular).

By order of H. E. the Right Hon. the Governor in Council,

C. GONNE,
Chief Secretary to Government.

Table of Precedence.

NOTIFICATION.

The subjoined Government Resolution No. 4777, dated 5th October 1880, Political Department, is published for the information of Educational Officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
11th October 1880.

No. 4777.

POLITICAL DEPARTMENT.

Bombay Castle, 5th October 1880.

Memorandum from the Educational Department, No. 1010, dated 11th August 1880—Transferring, for consideration with reference to this Department notification of the 30th April 1866, a letter from the Director of Public Instruction, No. 2112, dated 31st ultimo, who submits certain modifications of the Table of Precedence as affecting the order in which seats are allotted to Educational and other officers at Public Darbars, &c.

Note by the Chief Secretary to Government, Political Department.
Ditto by the Secretary to Government, Revenue Department, dated 7th September 1880.
Ditto by the Under Secretary to Government, Judicial Department, dated 6th September 1880.

} Making certain suggestions with regard to the position of Educational, Revenue, and Judicial Officers in the Table of Precedence.

Demi-official letter from the Honourable R. West, Vice-Chancellor of the University of Bombay, dated 21st September 1880—Returning a copy of the amended List of Precedence, and recommending certain alterations, &c., to be made as regards Educational Officers and persons holding University Degrees.

RESOLUTION.—The list should be revised in accordance with the suggestions of the above officers and published in the *Government Gazette*.

2. Copies should be sent to the Commissioners, Director of Public Instruction, Collectors, and Judges, and to the Accountant-General for entry in next publication of the Civil List.

(Signed) C. GONNE,
Chief Secretary to Government.

To the COMMISSIONER in SIND; the COMMISSIONER, C. D.; the COMMISSIONER, N. D.; the COMMISSIONER, S. D.; the DIRECTOR of PUBLIC INSTRUCTION; the AGENT for SIRDARS in the DECCAN; all COLLECTORS; all DISTRICT JUDGES, including those in SIND; the JUDGES of the SMALL CAUSE COURTS in the MOFUSSIL; the first JUDGE of the SMALL CAUSE COURT, BOMBAY; the ACCOUNTANT-GENERAL, BOMBAY; the REVENUE DEPARTMENT of the SECRETARIAT; the JUDICAL DEPARTMENT of the SECRETARIAT; the EDUCATIONAL DEPARTMENT of the SECRETARIAT; the SUPERINTENDENT, GOVERNMENT CENTRAL PRESS (with the Notification). With copies of the revised list.

POLITICAL DEPARTMENT.

The following Table to be observed with respect to the relative Rank and Precedence of Sirdars, and Native officers of Government and others holding Honorary Rank or University Degrees:—

Judges of Small Cause Courts Assistant Judges Settlement Officers Educational Inspectors Principals of Colleges affiliated to the University Superintendents of Police	To rank next after Sirdars of the First Class.
All persons on whom Government may have conferred the title of "Rao Bahadur" or "Khan Bahadur" All persons who have obtained the Degree of "Doctor" of Law or of Medicine Fellows of a British or Indian University All persons who have obtained the Degree of "Master of Civil Engineering" Subordinate Judges of the First Class Deputy Collectors and Magistrates Daftardars Assistant Settlement Officers Professors of Colleges affiliated to the University Principal of the Elphinstone High School Assistant Superintendents of Police	To rank with Sirdars of the Second Class according to the date of nomination or succession.

Head Masters of the First Grade High Schools and Principals of Colleges not affiliated to the University	To rank with Sirdars of the Third Class according to the date of nomination or succession.
Magistrates of the First Class or Magistrates exercising First Class powers	
All persons on whom Government may have conferred the title of "Rao Saheb" or "Khan Saheb"	
All persons who have obtained the Degree of "Master of Arts" or "Bachelor of Laws" ...	
Subordinate Judges of the Second Class, First Grade	
Mámlatdárs	To rank after Sirdars of the Third Class.
Honorary Magistrates of the Second or Third Class	
Subordinate Judges of the Second, Third, and Fourth Grade of the Second Class	
Vice-Principals of Colleges and High Schools, Assistant Professors of Colleges, and Head Masters of the Second Grade High Schools...	
Deputy Educational Inspectors (not being "Rao Bahadurs" or "Khan Bahadurs," "Rao Sahebs" or "Khan Sahebs")	
All persons who have obtained the Degree of "Bachelor of Arts" or of "Bachelor of Science," or of "Licentiate of Medicine and Surgery," or of "Licentiate of Civil Engineering"	
Inspectors of Police	
Conciliators and Village Munsifs under the Dekkhan Agriculturists' Relief Act	

By order of His Excellency the Governor in Council,

C. GONNE,

Chief Secretary to Government.

Mary Carpenter Scholarships.

NOTIFICATION.

The National Indian Association of London having founded five Scholarships for girls studying in the Marathi, Hindustani, and Gujarati Girls' Schools in the Island of Bombay, to be called "Mary Carpenter Scholarships," the following provisional regulations are sanctioned for their award for the year 1881 :—

The value of these Scholarships and the conditions on which they are tenable are as follows :—

All *bona fide* pupils of Marathi, Hindustani, and Gujarati Girls' Schools in Bombay, whether Government, aided, or private are admissible to the competition.

Two scholarships of Rs. 6 each per mensem to be awarded to the two girls who pass the best examination under the sixth standard for girls' schools, on the condition that the successful candidates, while holding the scholarships serve as pupil-teachers in a school open to Government inspection and give satisfaction to the Managers and the Government Inspector.

One scholarship of Rs. 5 per mensem to the girl who passes the best examination under the fifth standard for girls' schools, on condition that she continues to attend a school open to Government inspection, and makes satisfactory progress under the sixth standard.

Two scholarships of Rs. 4 to the girls who pass the best examination under the fourth standard on similar conditions.

The scholarships will be tenable for one year from the 1st of January 1881. They will be open to all pupils of the Marathi, Hindustani, and Gujarati schools who have attended the school for at least six months previous to the examination, and whose conduct and regularity of attendance are well reported on by the school-master or mistress.

The scholarships will be competed for at an examination which will be conducted by the Educational Inspector of the Central Division, or by a Committee appointed by him.

The examination will take place in the third week of December; the day and place will be fixed by the Educational Inspector, Central Division. The names and ages of candidates should be submitted to the Educational Inspector not later than the 30th November.

H. P. JACOB,
Acting Educational Inspector, C. D.

Bombay, 13th October 1880.

Primary Schools.

NOTIFICATION.

The subjoined Government Resolution, Educational Department, No. 1228, dated 28th September 1880, with accompaniment—(Rules defining the duties of District officers in connexion with primary schools)—is published for the information of Educational officers.

K. M. CHATFIELD,
Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
19th October 1880.

No. 1228.

EDUCATIONAL DEPARTMENT.

Bombay Castle, 28th September 1880.

Read again Government Resolution No. 600, dated 5th May 1880:—

"Letter from the Director of Public Instruction, No. 5800, dated 23rd March 1880—Submitting the report called for in Government letter No. 135, of the 3rd ultimo, regarding the scheme to strengthen the Educational Department by giving a more direct concern to District officers in the educational work of their districts, &c.

"Letter from the Director of Public Instruction, No. 5801, dated 23rd March 1880—Stating, in reply to Government Resolution No. 224, of the 20th ultimo, for reasons given, that the new scheme cannot be introduced on the 1st April without a great deal of trouble and correspondence. Proposing that the scheme be put in force from the 1st July next, when the Inspectors would have time to visit nearly every district and would give over charge in a proper manner.

"Letter from the Director of Public Instruction, No. 15, dated 2nd April 1880—Submitting, with his remarks, in continuation of his Office No. 5800 of 1880, copies of the opinions of the Collectors of Násik, Khándesh, and Ahmednagar on the proposed scheme of placing the primary schools in those districts under their control, and recommending that the rules proposed for the Northern Division may be adopted in the North-Eastern Division also.

"Letter from the Director of Public Instruction, No. 20, dated 2nd April 1880—Submitting, with reference to his No. 16 of 1880, a statement showing the proposed re-distribution of work by Local Fund Presidents in Sind, in connexion with Deputies and Assistant Deputies, together with his remarks and suggestions thereon.

"RESOLUTION.—The transfer to the several Collectors of the direct control over, and responsibility for, primary education in their respective districts, should be postponed till the 1st of July 1880."

Read—

Letter from the Director of Public Instruction, No. 1969, dated 22nd June 1880—Submitting, with reference to Government Resolution No. 600, dated 5th ultimo, the returns for 1879-80, shewing the increase noted in schools and scholars. Stating that in paragraph 21 of his No. 5800 of 23rd March 1880, he expressed his opinion that the system of administration now in force should be continued, but that certain measures

should be taken to bind District officers and the Inspectors more closely together, which were: (1) that all quarterly statements* should be signed by the Presidents of the Local Fund Committees; (2) that all inspection reports should be submitted through the Local Fund Committees; and (3) that the annual reports and returns should be sent through the Local Fund Committees. Making remarks.

* Establishment charges.

RESOLUTION.—By letter No. 135 of 3rd February last, the Governor in Council, after adverting to the continuous falling off in the number of scholars attending the primary schools of this Presidency in the previous three years, expressed the opinion that it could not be fully accounted for by the agricultural distress of the time, but was partly due to the fact that the task of encouraging the spread of primary schools, and of fostering those which already exist, had grown into too large a matter to be successfully dealt with by the executive staff of the Educational Department alone. It was accordingly proposed to place all control over, and responsibility for, primary education in a district in the hands of the Collector to whom the Deputy Educational Inspector was to be subordinate, while the Inspector would be charged with the duty of examining schools as at present, and communicating his criticisms and suggestions to the Collector and generally co-operating with him.

2. The Director of Public Instruction was then requested to propose the details of the scheme, and also to give his opinion generally on the subject of the Government letter.

3. In his Reports Nos. 5896 of 23rd March, and 1362 of 22nd June last, Mr. Chatfield complied with both requests. While carefully explaining the way in which the duties connected with primary education could be best distributed between the Director, the Inspectors, and the Collectors in the event of the latter being required to assume the direct management of the schools; he at the same time submitted an alternative scheme by which, in his opinion, the object of Government would be as effectually attained with less disturbance of the existing system.

4. In the meantime the Educational Returns for 1879-80 had been compiled, and found to exhibit a most satisfactory recovery, and indeed much more than a recovery from the losses in the time of famine. "The decrease," Mr. Chatfield wrote, "in the three years of suffering amounted to 7,861 children, and we now have about 25,000 children more than we had before the famine."

5. This most satisfactory intelligence shows that the previous falling off may be fairly attributed to the famine without ascribing defective action either to the Educational Department or to the District officers. The consideration which has been given to the matter has nevertheless impressed the Governor in Council with the

belief that the future development of primary education will be greatly promoted by giving to the Collectors a direct concern in the educational work of their districts.

6. The Chief Secretary to Government was accordingly directed to convene a Committee of the officers mentioned in the margin, for the purpose of considering (1) the details proposed by Mr. Chatfield for carrying out the scheme first proposed, and (2) Mr. Chatfield's alternative scheme. The details of the first scheme have been accepted if that is to be carried out, but the Committee have expressed a decided preference for the alternative scheme with certain important additions.

Lestock Reid, Esq.
E. P. Robertson, Esq.
A. T. Crawford, Esq.
K. M. Chatfield, Esq.
J. B. Richey, Esq.
Edward Giles, Esq.

7. The Governor in Council considers that the scheme as elaborated by the Committee is well calculated to attain the object of Government, and should be accepted with the slight alteration involved in the substitution of "Visitation" for the "Examination" of schools by the Assistant Collectors and other members of the Taluka Committee, the object in their cases being the general as distinguished from the technical ascertainments of the efficiency of the schools for their intended purposes. The scheme appears in the shape of Rules appended to this Resolution, and now issued for the guidance of the Educational Department and the District officers. It should be regarded as experimental for the first year, after which it should be made the subject of special report by the Commissioners, and by the Director of Public Instruction.

8. The thanks of Government should be conveyed to the gentlemen on the Committee for their assistance in this important matter.

C. GONNE,
Chief Secretary to Government.

To LESTOCK REID, Esq.; E. P. ROBERTSON, Esq.; A. T. CRAWFORD, Esq.; K. M. CHATFIELD, Esq.; J. B. RICHEY, Esq.; EDWARD GILES, Esq.; the DIRECTOR of PUBLIC INSTRUCTION; the COMMISSIONER in SIND; the COMMISSIONER, C. D.; the COMMISSIONER, N. D.; the COMMISSIONER, S. D.; all COLLECTORS, and the REVENUE DEPARTMENT of the SECRETARIAT.

RULES DEFINING THE DUTIES OF DISTRICT OFFICERS IN CONNEXION WITH PRIMARY SCHOOLS.

1. The Local Fund Committees should be reminded of the responsibility for promotion of primary education which attaches to their actual possession of authority to sanction budgets, vote money for schools and school-buildings, and to determine the places where schools are to be opened or closed.

2. These Committees should now be further recognised as possessing undisputed authority for determining—

(a) The Departmental standard of instruction, Bálbodh or Modi, which should be adopted in each school;

(b) The fees and free admissions in the schools, subject only to such limitations as may be prescribed by Government.

3. The Primary School Inspection-reports of the Deputy Inspector should be submitted to the Collector through his Assistant presiding over the Taluka Local Fund Committee, and should be forwarded by the Collector with his remarks to the Inspector. The Collector will bear in mind that it is essential that these reports should reach the Inspector as soon as possible.

4. It should also be considered as part of the regular duty of an Assistant Collector to visit a considerable number of primary schools, and report* the result in each case to the Collector, who will act on his discretion as to communicating it to the Inspector or not. The attention of the Assistant Collector should not be confined to the teaching of a school, but should extend to all matters affecting its interests. He should particularly remark on any rise or fall in attendance, and on the proportion which the attendance bears to the number of boys in the village of an age to attend.

* The usual printed forms can be obtained from the Inspector.

5. Visitations by the Assistant Collectors under the last two rules are to be extra to, and not in place of, the regular annual examinations by the Deputy Inspector. A few schools should be examined by the Deputy Inspector in the presence of the Assistant Collector, different villages being selected each year.

6. The other members of the Táluka Committees should be invited also to co-operate by visiting and being present at the examination of schools and communicating their remarks to the Táluka President.

7. The Mámlatdárs and Mahálkaris should visit every school within their charges for the purpose of investigating and reporting on such matters as the sanitary condition and safety of the school-buildings, the use or abuse of the free list, the number of boys present as compared with the number on the Register, and the general truth or otherwise of complaints brought against the schoolmaster.

8. The Annual Report of the Deputy Inspector on primary schools should discuss all points raised by the Collector and his Assistants during the working season. The report should be sent in original to the Inspector and a copy to the Collector before the 1st of May, in order that he may have time to communicate his remarks to the Director of Public Instruction before the 1st of June.

9. The educational part of the Local Funds Budget should be

in the hands of the (Collector) President at least a month before the Budget meeting.

10. All quarterly statements and changes in such statements should be forwarded by the Inspector for the countersignature of the Presidents of District Committees.

Servants' Blankets and Umbrellas.

No. 3020.

GENERAL DEPARTMENT.

Bombay Castle, 6th October 1880.

Letter from the Accountant-General, No. P. A. 6849, dated 16th July 1880—Stating, with reference to Government Resolutions Nos. 912 and 2260, dated 14th April 1869, and 28th November 1868, respectively, which sanction the annual supply of blankets and umbrellas to all peons and massáls (except the peons of Members of Council), that there are at present no menial servants called massáls in any of the Government offices at the Presidency, but the hamáls and tindals of the offices noted in the margin are allowed kumblis and umbrellas at the expense of the State, though the hamáls of the offices named below have not hitherto been supplied with these articles:—

Hamáls of the High Court, Original and Appellate Sides.
Hamáls of the Secretary to Government.
Hamáls of the Court of Small Causes, Bombay.
Tindals—Superintendent of Stamps.
Mocaddam—Grant Medical College.
Lascars—Superintendent of Stationery.

Hamáls of the St. Thomas's Cathedral.
" " Government Observatory.
" " Elphinstone High School.
" and Máli, Elphinstone College.
" " School of Art.
" of the Meteorological Reporter's Office.
" " Christ Church, Byculla.
" " St. John's Church, Colaba.
" " Insolvent Court.
" and Máli, Grant Medical College.
" of the Fanaswádi School.
" " Currency Department.
" " Lascars of the Stamp Office.

Remarking that there seems to be some uncertainty as to the classes of menial servants besides peons to whom blankets and umbrellas should be allowed; and suggesting that the allowance be confined to men who, like peons, are employed in two classes of duties

both within the office (where it is necessary that they be properly dressed) and also out of doors, and so require protection from the weather.

Further letter from the Accountant-General, No. P. A.—9845, dated 16th September 1880:—

"As requested in Mr. Acworth's memorandum No. 2175, dated 29th July 1880, I have the honour to submit a statement showing the strength of the establishment of peons and other menial servants in the various offices at the Presidency Town. It will be seen that there are 416 peons, who under the existing orders are all entitled to receive umbrellas and blankets at the expense of Government. It is not proposed to make any change in regard to them. There are 85 other servants variously designated hamáls, tindals, lascars, messengers, &c.; 57 of them at present receive the allowance, though not strictly entitled to it under the orders, and 28 of them do not receive the allowance. Under the proposed rule only so many of them should receive the allowance as have both in-door and out-door work requiring that they should be decently dressed and protected from the weather. It is impossible to tabulate the exact financial effect of the proposal before it is known how many of the menial servants are required for both in-door and out-door work. As a rule menial servants other than peons should not receive the allowance, but it might be passed on a statement by the head of the office of the duties of the servants, showing that it was permissible, any doubtful case being submitted to Government. If this proposal be adopted there will be a possible maximum saving of Rs. 178-2-0 per annum. This saving will be reduced by the amount necessary for any of the excluded menials to whom Government may be pleased specially to grant the boon.

"2. An umbrella will not be serviceable after a year's use, but a blanket can certainly be made to last two years. If this is ordered, there will be a further annual saving of Rs. 1-2-0 per head for 416 peons and as many other menials as may receive the allowance under the new orders.

"3. My intention in raising the question was not so much economy, which can only be small, but to get a general ruling on a subject which every year gives rise to dispute and troublesome disallowances in account."

Resolution.—The principle proposed by the Accountant-General may be sanctioned as to those who now do not receive kumblis or chatris; but it seems that the number of those who receive them may be reduced without difficulty or injury to the public service. For example, there is no necessity to give 21 men in the Accountant-General's office each a kumbli and a chatri. They are only required when they are sent on an errand during the hours which falls

in Bombay, to protect them and the papers they may carry from wet. Two or three men may be absent at the same time, and two or three blankets and the same number of chatris would seem to be sufficient.

(Signed) JOHN NUGENT,
Acting Secretary to Government.

To all DEPARTMENTS of the SECRETARIAT, the ACCOUNTANT-GENERAL, the MILITARY SECRETARY to HIS EXCELLENCY THE GOVERNOR; the SURGEON-GENERAL with the GOVERNMENT of BOMBAY; the SANITARY COMMISSIONER; the ORIENTAL TRANSLATOR to GOVERNMENT; the SUPERINTENDENT, GOVERNMENT OBSERVATORY, COLABA; the CURATOR, VICTORIA and ALBERT MUSEUM; the SUPERINTENDENT, GOVERNMENT CENTRAL PRESS; the METEOROLOGICAL REPORTER for WESTERN INDIA; the COMPILER, BOMBAY GAZETTEER; the COMMISSIONER of CUSTOMS, OPIUM, and ABKARI; the COLLECTOR of SALT REVENUE; the INSPECTOR-GENERAL of REGISTRATION and STAMPS; the COLLECTOR of BOMBAY; the SUPERINTENDENT of STAMPS; the COMMISSIONER of PAPER CURRENCY, the SUPERINTENDENT of STATIONERY; and the REPORTER on the NATIVE PRESS.

MEMO.

Published for the information of Educational officers in the Central Division.

H. P. JACOB,
Acting Educational Inspector, C. D.

Bombay, 30th October 1880.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT, FROM THE 16TH OF SEPTEMBER TO THE 15TH OF OCTOBER 1880.

17*th September* 1880.—Two months and thirteen days' privilege leave is granted to Mr. Ghulam Ali Akhund, Head Master, Normal School, Hydrabad.

23*rd September* 1880.—A further extension of three months' sick leave is granted to Mr. Ramakant Krishna Bhende, Acting First Assistant Master, Narayan Jagonath High School, Karachi.

25*th September* 1880.—Mr. N. B. Godbolé, B.A., is appointed on probation Sanskrit Teacher, Elphinstone High School.

25*th September* 1880.—Mr. Ganesh Janardhan Agashé, B.A., is appointed First Assistant Master, Ahmednagar High School.

25th *September* 1880.—Mr. R. V. Sabnis, B.A., is appointed First Assistant Master, Tanna High School, continuing to act as First Assistant Master, Dhulia High School.

25th *September* 1880.—Mr. H. G. Godbolé, B.A., is appointed Third Assistant Master, Byramji Jijibhai Tanna High School, continuing to act as Second Assistant Master, Ratnagiri High School.

25th *September* 1880.—Mr. V. B. Parchuré, B.A., Assistant Master, Poona High School, is appointed Acting First Assistant Master, Byramji Jijibhai High School, Tanna.

27th *September* 1880.—Mr. Kashinath Ganesh Kelkar, B.A., is confirmed as First Assistant Master, Satara High School.

27th *September* 1880.—Mr. Sakharam Ramchandra Kirloskar, B.A., is appointed First Assistant Master, Ratnagiri High School.

28th *September* 1880.—Mr. Mahadeva Ramchandra Potnis is appointed Acting Fifth Assistant Master in the Byramji Jijibhai Tanna High School.

4th *October* 1880.—An extension of one month's leave on private affairs is granted to Mr. Krishnalal G. Mehta, Sub-Deputy Educational Inspector, Jalawad Prant.

4th *October* 1880.—Mr. Krishna Lakshaman Datar, Head Master, First Grade Anglo-Vernacular School, Ahmednagar, is appointed Head Master Jagannath Sankershet First Grade Anglo-Vernacular School, Bombay.

4th *October* 1880.—Mr. Vinayek Kondeo Oke, First Assistant Master Ahmednagar First Grade Anglo-Vernacular School, is appointed First Assistant Master, Jagannath Sankershet First Grade Anglo-Vernacular School, Bombay.

4th *October* 1880.—Mr. G. K. Sohdé, Head Master, Jagannath Sankershet First Grade Anglo-Vernacular School, Bombay, is appointed Head Master, First Grade Anglo-Vernacular School, Ahmednagar.

5th *October* 1880.—Mr. K. D. Chaubal, Assistant Master, Hydrabad Engineering School, is appointed Sixth Assistant Master, Satara High School.

7th *October* 1880.—Mr. Anant Kashinath Oke, Second Assistant Master, First Grade Anglo-Vernacular School, Ahmednagar, is provisionally appointed First Assistant Master in the same school, *vice* Mr. Oke, transferred to Bombay.

7th *October* 1880.—Mr. Dhondo V. Jakatdar is appointed Second Assistant Master, First Grade Anglo-Vernacular School, Ahmednagar, on probation.

12th October 1880.—Mr. Haripada Mitra is appointed Fellow in the College of Science from the 10th instant to 31st December 1881.

14th October 1880.—Mr. S. C. Anikhindikar, Third Assistant Master, Karwar High School, is appointed substantive *pro tem.* Second Assistant Master in the same school.

14th October 1880.—Mr. R. J. Joshi, Fourth Assistant Master, Karwar High School, is appointed substantive *pro tem.* Third Assistant Master in the same school.

14th October 1880.—Mr. B. A. Dongré, Fifth Assistant Master, Karwar High School, is appointed substantive *pro tem.* Fourth Assistant Master in the same school.

14th October 1880.—Mr. H. S. Nadkarni, Sixth Assistant Master, Karwar High School, is appointed substantive *pro tem.* Fifth Assistant Master in the same school.

14th October 1880.—Mr. M. D. Nadani, Seventh Assistant Master in the Karwar High School, is appointed substantive *pro tem.* Sixth Assistant Master in the same school.

14th October 1880.—Twelve days' sick leave is granted to Mr. Hormasjee Nowrojee Lord, Twelfth Assistant Master (Gujarati side), Elphinstone High School.

14th October 1880.—Mr. Nasirvanji Karanji Coorlawala is appointed Acting Twelfth Assistant Master (Gujarati side), Elphinstone High School, *vice* Mr. Lord.

14th October 1880.—Mr. Mahadeva Bhaskar Chanbal, B.A., is appointed substantive *pro tem.* Assistant Persian Teacher, Elphinstone High School, *vice* Mr. D. D. Shukla.

14th October 1880.—Mr. F. M. Dastur, M.A., is appointed Third Assistant Master (Marathi side), Elphinstone High School, *vice* Mr. Kirtikar, transferred to Ratnagiri, and Acting Second Assistant Master in the same school, *vice* Mr. Chanbal.

15th October 1880.—One year's leave without pay is granted to Mr. K. G. Chanbal, Sixth Assistant Master Satara High School.

15th October 1880.—Mr. G. L. Joshi is appointed English Clerk in the office of the Educational Inspector, North-Eastern Division.

15th October 1880.—Mr. Bhaskar B. Nimbkar is appointed Seventh Assistant Master, Dharwa High School.

E. M. CHATFIELD,

Director of Public Instruction.

Poona, Office of the Director of Public Instruction,
20th October 1880.

Bombay Educational Record.

No. 12.] DECEMBER 1, 1880. [Vol. XVI.

THE MONTH.

THE Indian Census will take place on the 17th of February next, and all public offices are to be closed for the purpose on the 16th, 17th, and 18th of that month.

The Census-Commissioner for all India is Mr. C. A. Elliott, C.S.I. The Deputy-Superintendents of Census are: For Madras, Mr. G. Stokes; for Bombay, Mr. J. A. Baines; for Bengal, Mr. J. A. Bourdillon; for the N.-W. Provinces and Oudh, Mr. E. White; for the Punjab, Mr. D. J. Ibbetson; for the Central Provinces, Mr. T. Drysdale; for Berar, Mr. K. J. Kitts; for Assam, Mr. F. Driberg; and for British Burmah, Mr. F. S. Copleston.

The Census-operations in Mysore and Ajmir will be conducted by the Chief Commissioners.

A DEAD account is given, in a recent number of *All the Year Round*, of Village Schools in Russia, by one who is evidently no stranger to that unfamiliar land. They are held only in winter, the parents at other seasons of the year being unable to dispense with their children's labour. There are a few Government Free Schools dotted about the country, at which the more aspiring lads can be coached up to pass an examination which shall reduce the six years of compulsory service in the army to four. But, notwithstanding these advantages, public opinion among the peasants is in favour of the People's Schools, kept up by themselves, where some *employé* of a neighbouring church, or some retired soldier, or a pupil from a Government school, is set to teach from ten to thirty scholars writing and reading. The ordinary course of two or three winters costs from first to last about a guinea, with now and then a present in kind to the teacher. The *ne plus ultra* is the power of reading the Psalms. School-hours are from 7 A.M. to 6 P.M.; and no wonder

that such lengthened hours in the close room of a cottage, heated with an earthen stove, tells on the looks of the young people before the winter is over, and sends them forth wizen and haggard. If funds are insufficient to hire a hut, the teacher itinerates up and down the street from hut to hut, keeping school for a day in each, and sharing with the family their usual meal of black bread, potatoes, and dried mushrooms. As the houses contain but one room, many are the occupations which mingle with school-keeping; and the cries of a fractious baby, slung up in a cradle to the roof, may be its unceasing accompaniment. School-materials are thriftily used. The same books survive the use of several generations. The same pen will serve a boy for his whole school-course, and be mended for the brother that succeeds him. The writing-fluid consists of a small bottle of ink emptied into a wine-bottle of water. The teacher can read like a steam-engine, without stop or pause, and equally without understanding. He can count up to a thousand, and add and subtract; but he cannot multiply or divide. His salary is from 1*l.* to 2*l.* for the winter, besides his board. If he is a retired soldier, he shows his martial spirit by successfully beating and pinching the children. He is often absent in quest of drink: but he makes his peace, both with teachers and parents, on his return, by wondrous tales of his former campaigns, and of scenes in strange contrast with the dreariness of a Russian village in winter time.

Last year, says the *Athenæum*, 32,262 cwts. of printing paper, worth Rs. 12,57,528, were imported into India. The value of the writing-paper imported was over fourteen lakhs of rupees, and of other kinds of paper over four lakhs. Want of enterprise, it is said, is the only thing that prevents India from supplying itself with paper, the materials being ready to hand.

Candidates for admission into the School of Agriculture at Sydapet, Madras, will in future be required to pass the Middle-School Examination in English, and only a first-class certificate will be accepted.

The following return, compiled by the Marshals of the University of Cambridge, shows the number of residents last November term at the various colleges, and also the number of matriculated students in residence. Graduates as well as undergraduates are included

As compared with a similar return last year, it appears that there is a decrease of 13 residents in college and an increase of 85 residents in lodgings, thus giving an increase of 72. The numbers are as follow :—

College.	In College.	In Lodgings.	Total Resident.
Trinity	328	338	666
St. John's	209	193	402
Jesus	72	142	214
Caius	100	87	187
Trinity Hall	51	124	175
Pembroke	44	122	166
Christ's	70	70	140
Clare	56	79	135
Corpus Christi ...	79	52	131
King's	70	35	105
Emmanuel	66	30	96
St. Catharine's ...	38	33	71
St. Peter's	56	13	69
Magdalene	49	16	65
Queen's	42	17	59
Downing	33	24	57
Sidney	42	13	55
Non-Ascripti	0	178	178
	1,405	1,566	2,971

The Bombay University Syndicate have appointed a committee composed of the following gentlemen to experiment and report on the best means for improving the acoustics of the University Hall :—Major-General J. Fuller, R.E.; Mr. F. W. Stevens, C.E.; Dr. J. R. Lyon, F.C.S.; Mr. E. B. Carroll, M.I.C.E.; Rao Sahib Mukund Ramchandra. We could have wished that the committee had also been commissioned to report on the speediest plan of completing the University clock-tower, whose eyeless and voiceless condition has for so many months past made pathetic appeal to every passer-by.

Mr. Darius L. Goff, of Providence, U.S.A., says the *Daily News*, is the possessor of a clock of singularly varied capacities. It is situated in the hall of Mr. Goff's residence, in near proximity to the

front door, which, as it is opened and shut, winds it up. In return for this service, the clock turns on the gas in the hall as soon as darkness comes on, and lowers it to a bead-light at a particular hour fixed upon as bed-time. At dawn, or at such hour as it is time for the servants to be up, the clock rings a bell in the back hall with a persistence that precludes possibility of excuse on the ground that the signal was not heard. An hour later, it rings a bell in another part of the house, warning the family that it is time to rise. Half an hour afterwards, a third peal of the bell announces breakfast. This wonderful piece of mechanism is perhaps more pleasurable to contemplate at a distance than at home. It is possible to conceive circumstances under which its rigid persistence in ringing bells at precise hours would become insupportable. The weak point of the clock is, of course, in respect of its connexion with the front door. Any member of the household, whether subject to the first morning bell or the second, might by a little judicious superfluous opening and shutting of the door bring about those complications which result from overwinding. It is said that the clock is two hundred years old, and that towards its present state of comparative perfection it has, like the British Constitution, slowly broadened down. It is evidently yet only in its infancy, and it would not be prudent to limit its possibilities. Mr. Darius L. Goff is, doubtless, the sort of man who will not be satisfied until, in addition to the household duties already performed by the clock, it cooks the dinner, blackens the boots, brushes its master's clothes, and wheels the infant out in a perambulator.

AN ACCOUNT OF THE MODEL SCHOOL OF THE LIGUE DE L'ENSEIGNEMENT AT BRUSSELS.

The very term Model School requires some explanation. It seems too much like one of those convenient expressions, which indicate the aims and aspirations of theorists to be thought of as a concrete visible reality. Of Model Schools, in the history of education, there have been no end. There has been the school of Plato, of Milton, and others. But these schools have existed on paper only. They have been founded on philosophical theories, supported by speculative doctrines, and embellished by fine phrases.

The school I am to describe to you this evening actually exists, and is attended by living children. It is not an unrealizable ideal, but a real embodiment, not of one, but of several ideas.

To describe in vague and loose phraseology, as is so often done

in the numerous platform speeches which occupy the columns of our daily papers in the summer months, the aim and objects of the highest education, the true method of developing the faculties, and of avoiding "cram"—to point out the conditions under which thought and memory are strengthened, and the true end of education is attained—is indeed something very different from the establishment of a school in which the theoretic principles of hygiene are carried into practice, and in which living teachers exemplify on living children the pedagogic rules which form the subject-matter of so many speeches.

Slowly and by degrees, the teachings of such men as Rousseau, Mill, and Spencer have been working their influence on our schools; but the changes that have been wrought have been effected by the gradual adaptation of our existing systems to the new ideas, and not by the striking out of some altogether fresh plan, corresponding to the generally recognized principles of the most advanced thinkers. Here a little, and there a little, the whole system of education has been crumbling away of late years, under the pressure of what may be called the "pedagogic renaissance." But everywhere there has been gradual change and evolution, and nowhere anything that may be called a new creation. Such a new creation is the Model School at Brussels. To read the objects this school has been constructed to fulfil, one seems to be reading the ordinary "common-places" with which we are so familiar, and which are repeated in speeches and in lectures, seemingly with a view of evoking some kind of enthusiasm for their work in the minds of teachers, and of preventing them from becoming the "dreary drones," which so many of them were some few years since.

Let us see for a moment what these objects are. Called into being by the "Ligue de l'Enseignement"—that excellent association, which at the Brussels Jubilee succeeded in attracting a thoroughly "International Congress" of men and women interested in the solution of the highest educational problems—this school has for its end and object the harmonious development of all the faculties of mind and body. "To awaken the faculties which exist as germs in the brain of the child, and to develop them harmoniously; to alternate with mental work, free recreation, regulated drill, and gymnastic exercise; to furnish by intuition primary ideas; to excite continuously spontaneity; to make use of the exact sciences, and the sciences of observation, to find therein material for exercises, calculated to excite habitual attention and to produce reflection; to create a healthy judgment; to open to the imagination, guided by the real knowledge of acquired notions and by right judgment, vast horizons in which it cannot go astray, nor yield itself to vague and incoherent dreams;—in a word, to form men, knowing what is true, accustomed to observation, having well-balanced faculties and powers, thinking justly, loving duty, and accomplishing it, simply because the law so requires it." Such, according to M.

Smets, was the mission confided to the founder of the Model School. In all this we recognise nothing new, much that some of us would not be willing to accept, but nothing that we have not heard time after time from advocates of sense-teaching. The only thing worthy of consideration is, that in the school at Brussels these ideas have found practical expression, and that an experiment is being there tried different from any that can be witnessed in this country. It is not for a moment pretended that in this school perfect teaching has been attained, or that the system of instruction there pursued is incapable of improvement. All that is contended is, that the methods and the system correspond to the existing state of knowledge; that every advance in theory will be accompanied by a corresponding advance in practice. To compare the Model School, or the education it affords, with any school in England, is to fail at once in understanding or appreciating the true character of this Institution. The Model School aims at providing an education which corresponds as exactly as possible with the existing state of pedagogic science.

Now, in order to form any idea of the system of instruction pursued in the Model School at Brussels, it is necessary, in the first instance, to dismiss from your minds all reference to the examination system, which dominates to so great an extent all classes of educational institutions in this country. To a teacher who has had little experience of foreign schools, and who has been accustomed to look to the "payment by results," whether in honours or in hard cash, as the real end of all teaching, there is naturally some difficulty in breaking a mental association, which, in the case of very many, has existed from early childhood till now. Still, the effort must be made if the Model School system is to be fairly understood.

It is quite clear that every kind of school in England is fashioned, more or less, after the type of the old grammar-schools. Considerable modifications have been introduced; but our schools, as they now exist, have been evolved under the influence of surrounding circumstances from the original type. There has been no new creation.

Now the Model School of Brussels may, I think, be described as such. Its founders, dismissing from their minds the *curricula* of all existing schools, and all ancient and modern systems, except in so far as the experience obtained therefrom might aid them in resolving questions of detail, have set before themselves this problem:—Given a set of children, possessing known bodily and mental faculties; given the surrounding circumstances of life; what is the best way of qualifying these children to make the best use of life, to enable them to fetch most out of, and to give most to, the world by which they are enveloped. The problem is the same as that propounded by many writers, and notably by Herbert Spencer; and the solution arrived at by the "Ligue de l'Enseignement" is not very different from that of the English philosopher. But, whilst Herbert Spencer's

Essays were intended, probably only to effect some modifications in existing schools, so as better to adapt them to the new wants that had arisen, the Belgian Society having, according to their wisdom, elaborated a system of education which would afford the best possible development of a child according to his environment—a development which, to use Herbert Spencer's words, would fit him for "complete living"—they proceeded to formulate the practical details of such a system, and then obtained sufficient funds to try the experiment on such a scale as would enable them adequately to test it.

One other preliminary word, and I pass on to a description of the school itself. In most English schools, classical or modern—I will not say in all—the primary object of the instruction is to stock the mind with knowledge. The examinational system imposes this obligation on teachers. Although many subjects of the school curriculum are avowedly taught more for the mental training they afford than on account of practical usefulness of the knowledge gained, still the objects of the schoolmaster are principally, and I do not say wrongly, to give knowledge. Now, in the Model School the development of the faculties is the first consideration; the knowledge acquired in the development is of secondary importance. To train the senses to nicer discriminating power; to improve the retentiveness and quickness of memory; to develop the faculties of reasoning and the imagination, and to give a healthy tone to the latter; to excite moral approbation and disapprobation for actions to which the words *right* and *wrong* respectively and generally correspond; and specially to develop the bodily organs—this is the end of the Model School education. The *mens sana in corpore sano* hardly corresponds with this idea of the development and expansion of all the faculties of mind and body. The educated mind differs from the *mens sana* as the body of the athlete does from the *corpus sanum*.

The Ecole Modèle corresponds, as regards the age and social status of the pupil, most nearly with one of our middle class schools. The boys enter at any age above seven, and they remain till fourteen or fifteen. According to the views of the Ligue de l'Enseignement, a system of primary instruction consists of a Kindergarten School for children from five to seven, of an Intermediate School for children from seven to nine, and of a really Primary School for pupils from nine to twelve; the subsequent instruction from twelve to fifteen should be partly spent in active preparation for some industrial pursuit. The school was originally intended to be free, but the resources of the Board did not enable the founders to carry out their original intentions, and, except in the case of pupils who enter the school by scholarships from the primary schools, the fees are fixed at 150 frs., or £6 a year.

In order to give you some idea of the arrangement of the classes, I have had prepared the plans which you see exhibited, and which have been enlarged by Messrs. Davis and Emanuel, the architects

of the new City of London School, from a small plan contained in a descriptive volume of the school, published by the Ligue in Brussels. The school is arranged according to a plan which is now being adopted in some English schools, an excellent example of which may be seen in the North London Collegiate School for Girls. The class-rooms all open into the central hall, and are arranged in two storeys. On entering the school, you find yourself in a grand hall, to the left of which is the porter's lodge, and to the right a reception-room for the parents of the pupils and other visitors. There is also on this floor a room originally intended for a cloak room, but now used for models and general apparatus. Above these are the private rooms of the head-master, as well as a drawing-room and museum and library for the teachers. The class-rooms on the first floor open on to a gallery, which surrounds the central hall. This hall contains an area of about 4,230 square feet. There are 12 class-rooms, and the maximum number of pupils admitted into a class is 33. The accommodation of the school is consequently limited to 400. Each class-room is about 29 feet long, 22 feet broad, and 17½ feet high, giving about 346 cubic feet for each pupil. In all the classes, the desks are so arranged that the light enters the room on the left-hand side. Every child has a separate desk, the form of which is not at present uniform in all the classes; but I understand that the question of the shape of desk is now settled, and that the inclination of the desk is 20°, and the seats are shaped and provided with backs, which are slightly curved. The most remarkable feature of the class-rooms are the black-boards, which are continuous round three walls of the school (forming a complete *lambri* or *dado*), the fourth wall being occupied by the master's desk and the ordinary black-board used for the purposes of demonstration.

The hours of instruction are from 8 till 12, and from 1-30 to 4-30, thus giving 7 hours' school-work. This, it must be remembered, comprises some amount of recreation, and is inclusive of home-work. Each lesson occupies three-quarters of an hour, and is followed by a quarter of an hour's recreation, in which the pupils, under certain general restrictions, are quite free. No home-work, except in certain cases of carelessness, or for some special object, is given to the pupils. With respect to this point, it is thought that "nothing is more beneficial than evenings passed in the calm enjoyment of family life." In fact, an important feature in the school-system is the endeavour to enlist the free co-operation and interest of the parents in the pupils' daily tasks and progress. A number of regulations are framed with this object. Of these, the best worth noting is that which recommends—in the strongest terms short of compelling it, which is impossible—that every pupil of the school shall read aloud, for a quarter of an hour, in the presence of his family, in accordance with certain rules, referring to position, &c., which are given on a circular sent round to the parents

of all the pupils. There is, no doubt, much to be said in favour of such a practice. The practice is also rigorously enforced of requiring the pupils to answer all questions put to them by the masters in complete sentences, as a means of securing a good elocution, and, at the same time, of impressing more firmly on the memory the answer required. Discipline is maintained, as indeed it is throughout all schools in Belgium, without the use of corporal punishment, by the moral influence of the masters, by good and bad marks, and weekly reports, and by a graduated system of punishments, the chief of which is the arraigning of the boy in the presence of his parents before the committee of the school. In those cases only in which the parents fail in attend are they requested to withdraw their child from the school. Here, too, the masters and the parents consult together over the discharge of a joint duty. The matter of religion is left entirely in the hands of the parents. No interference with the religious opinions of the pupils is permitted in the school, as no religion is there taught. Moral conduct is stimulated, altogether apart from the religious sanction, by the force of habit, by discipline, by a constant appeal to the common good of the school, and by the influence of high ideals.

Physical exercise is promoted chiefly by well-organised drill. One of the most interesting sights which I witnessed in connexion with this school, was the drill-exercise in the large hall. Here the boys, from ten to fifteen years of age, went through their manual exercise, under the general orders of their sergeant; they marched in lines of two and four; they performed various manœuvres, and ultimately they formed a square round the Belgian colours, for which the boys are taught to entertain a completely military respect. During these exercises, the word of command was taken up by half-a-dozen small boys, who played their part as sub-officers with perfect discipline, and whose shrill, small voices, raised in command, were strictly obeyed by the boys forming the separate divisions. At the close of this very interesting exercise, the boys sang most pleasingly, and with exquisite feeling to the accompaniment of the organ. Nothing could have been more gratifying than the manner in which their military exercises were performed.

An important feature of the school-system, which may be noticed here, before considering the curriculum and the principles by which it was evolved, are the periodic excursions. These are organised, not as an occasional treat or reward for the more industrious of the boys, but as an essential part of the school work; and the refusal of permission to a boy to join in the excursions is one of the punishments to which a boy is subject. Each class makes at least two excursions every month. The object of these excursions is to give the pupil a practical acquaintance with a variety of things which it is desirable that they should understand, and which otherwise they would know by the medium of books only. It is a part of the

realistic system which governs the teaching of the school—that sense-knowledge should be appealed to wherever sense-knowledge can be gained. Everything connected with these excursions is carefully prepared beforehand, and such information is given to the pupils as will enable them to understand and appreciate the signification of the objects they will see. The excursions comprise visits to historical monuments in the city, to museums, to factories, to zoological gardens, to places illustrating facts in geography and geology. On returning from each excursion, the pupils write a description of what they have seen, and of what they may infer therefrom, and these descriptions are discussed and corrected by the masters. How far it would be possible to include such excursions in the curricula of any of our schools, or with what good results, I cannot now pause to inquire.* My business is rather to describe than to criticise.

I now proceed to consider the subjects taught in this school, and, so far as time will allow, the methods employed. In drawing up the programme, and indeed in every regulation of the school, the objects of the founders are made plainly evident, viz., to train and develop the faculties, and to evoke spontaneity. "The culture of the intellectual faculties is the principal object," says the programme, "of the pedagogic reform for which the Model School has been created." Carrying on the system of Froebel, which presents to the child's view, so as to excite observation, actual objects, it comes about, by a natural coincidence, that the objects with which science is concerned present the best possible materials for the improvement of the powers of observation, the strengthening of the memory, and the development of the reason. Reached by a somewhat different method of reasoning, Herbert Spencer arrives at the same result. Herbert Spencer, it must be remembered, places the usefulness of a study, i.e., its practical service in life, in the foreground in the choice of subjects of instruction; and finds, by a similar coincidence, that those subjects which are best worth knowing yield, in the acquisition of the knowledge, most discipline. The founders of the Model School attach first importance to mental discipline. "That the faculties of a child are usefully employed is the chief thing; the subjects of instruction are a matter of secondary importance." But they equally arrive to the same conclusion, that the elements of science afford the most suitable ideas for the development of the intellectual faculties. Accordingly, science-teaching occupies a prominent place in the programme of the studies. In the youngest classes, this consists of little more than placing before the child different objects, and giving to each its proper name. Nothing more is explained than is sufficient to draw the child's attention to the external appearance of the animal, plant, geometrical form, or other object that is being inspected. In this way the child's

* A similar system of excursions is adopted, with very good results, at Queenwood College, near Stockbridge, Hants.

acquaintance with things is extended, and, at the same time, his knowledge of names. In the higher classes, each of the sciences in turn furnishes subject-matter for instruction; and the school authorities are fully aware that their system is open to the reproach that the teaching is superficial, and not thorough. This they admit to a certain extent, and justify on the ground that the end of primary instruction is to arouse the intelligence, to bring the faculties into communion with as much of the outer world as possible, to draw simple inferences only, and to leave till a later period of study all complex reasoning and wide generalisations. Thus the programme of instruction includes the elements of Botany, Zoology, Mineralogy, Chemistry, Geology, Physics, and Mechanics. In estimating the value of this general and elementary science-teaching, it must be distinctly remembered that the teaching is not book-work. Nothing could be farther removed from the science-teaching of the last half-century, which was gained from books on useful knowledge, and consisted generally of questions and answers, than the science-teaching of the Ecole Modèle. Whatever may be its imperfections, it is what it professes to be—*real*. It is not gained from reading lessons, how economical soever such a process may be. If a child of the Ecole Modèle describes a leaf of a tree, or the petal of a flower, he has seen it; if he tells you of the structure of the wing of a bat, he has handled it; if he talks of the bones of the human foot he has taken them to pieces and replaced them. Indeed, of such importance is the knowledge of the structure of the human form considered, that an actual human skeleton is suspended in every class-room of the school. The teaching of Chemistry is equally real; and if you will pass into one of the class-rooms on the right, you will find a roughly constructed laboratory, and a number of boys busily engaged in the preparation of the simpler gases. Their nimble fingers are accustomed to manipulation, and the experiments previously performed by the teachers are easily and accurately reproduced by separate groups of boys.

I need not say that considerable attention is given to the teaching of Geometry, which occupies an important place in the time-table of all the classes of the school. But it is not the Geometry of Euclid; it is not the Geometry, or what unfortunately passes for it, of nine-tenths of our English schools. The pupil of the Model School of Brussels, and indeed of the majority of Continental schools, is not plunged wholly unprepared into the complex deductions of Euclid, or any other system of demonstrative Geometry, the difficulties of which are so often met by the pupil learning by heart the words of the propositions to be proved, without understanding anything of their signification. No, we in England enjoy the proud pre-eminence of a unique method of teaching Geometry, which, strange to say, our Gallic and Teutonic neighbours do not envy us. Let us examine, for a moment, the subjects comprised under Geometry.

In the first place, the pupil is shown solid geometrical figures; he is then exercised in constructing them for himself in clay, in cardboard, or with wires; he is then shown how to distinguish the several parts of which figures are composed, and so to understand the definitions; to recognise in other objects than in mere geometrical figures, the recurrence of the same forms; and further, to judge distances by the eye, so as readily to distinguish five inches from seven inches. This elementary teaching is followed by a more intimate investigation into the characters of solid bodies. The pupil is exercised in making sections of prisms, spheres, cylinders, and cones; in methods of measuring areas and volumes; in obtaining by actual intuition a knowledge of the properties of different figures; and, finally, in geometrical constructions. Indeed, many of the suggestions contained in a lecture which I delivered in February last before the College of Preceptors are found to be in actual operation in Brussels.*

Let me ask you to follow me for a moment into a class-room on the right, where a lesson in Geometry is being given to a class of boys of about ten years of age. I take my seat on a chair, close to the skeleton which is suspended by my side, facing the boys, who can, if they choose, institute a comparison between me and my fleshless neighbour, and wonder whether it ever resembled me, and how long it may be before I shall resemble it—for there is a strong family likeness about skeletons. The walls are furnished with shelves, on which various objects are ranged. Here is a complete set of weights and measures; near these are a number of geometrical forms—some in wire, some in wood, others in section. Further on are skeletons of other animals, and a collection of different kinds of wood. The eye is then caught by a series of surfaces illustrating the various shades of colour; and close to this is a case of different woollen and cotton materials, and a variety, too numerous to recount, of other objects appealing to the senses for recognition. Near me is the master, standing on an ordinary platform, with a desk in front of him, and a black-board at his side; and round the room, with their backs to the master, are ranged the boys, each in front of his panelled black-board with chalk in one hand and sponge moistened at the china sink, with which every class-room is provided, in the other. And now the master commences to dictate a geometrical exercise to his pupils. Before him is an irregular six-sided figure, with sides of unequal length. "From the point *A* draw a horizontal line *AB* of 11 centimetres in length, at *B* construct an angle of 120 degrees," and so on; and gradually is evolved on every black-board an accurately drawn facsimile of the figure from which the teacher has dictated the exercise. Mistakes undoubtedly occur, but they are corrected when the figure is examined and the source of the error clearly pointed out.

* "On Euclid and the Teaching of Geometry" (C. Kegan Paul & Co.), pp. 15-16.

Let us witness a very early lesson in Geography. As maps are indispensable in the study of Geography, through the practical and absolute inability of every one to travel over the countries with the general features of which it is necessary to be familiar, it is very essential that a child should have a clear idea of the meaning and purpose of a map. We are standing in the big hall on the ground floor. The plan of the school is exhibited before us. The boys are gathered round it. One boy holds a long pointer, and indicates on the plan a course which he proposes another boy shall take to reach a certain spot on the school. The course having been indicated, a third boy objects that it is impossible, as it would necessitate the passing through a wall, or the jumping over a high rail. The course being duly altered, a boy at once proceeds to travel over the ground described on the plan, and having arrived at the place proposed, he halts and makes known his position by showing himself on the gallery, or by letting himself be heard. Sometimes he goes wrong, and another boy corrects his route. This game of Geography seems to amuse the small boys very much, and is undoubtedly a practical way of clearly explaining to young children the meaning of a map.

I need hardly say that Drawing is taught throughout the entire school, and not as an accomplishment, but as an essential of primary instruction. And I hope I may be pardoned if I avail myself of this opportunity to express the hopes that Drawing may become, before long, an obligatory subject in all our Board Schools.

With respect to the question of Grammar, let us see what is done at our Ecole Maîtèle. The child obtains by practical experience an acquaintance with the elements of Etymology. He is able to distinguish a noun from an adjective, and an adjective from a verb; he discovers, too, the difference between such words as "*of*" and "*to*," and categorematic words. Some notice of inflexion he will also necessarily obtain. But Grammar is regarded as an abstract science, which has its proper place in secondary education. The teaching of it to young children is pronounced harmful.

A subject of instruction, which appears to have given great difficulty to the founders of this school, is History. All practical teachers will understand the kind of difficulty which the teaching of this subject presents, when it is taught for its own sake, and for the development of the faculties, and not for the satisfaction of an examiner. We cannot place Alcibiades and Julius Cæsar, Charlemagne, St. Dunstan, Queen Elizabeth, and Isabella on the table, and make them like puppets re-act the scenes of their past lives. We cannot reproduce the circumstances in which they lived, nor realize the influence of the element of time in the production of bygone events. Indeed, the question of time gives rise to two difficulties; first, the difficulty of enabling children to realise the interval between the past and the present; and secondly, the difficulty of enabling them to form an idea of the intervals between different events in the distant past. History is spread before the child's

mind like the stars of heaven are before the vulgar gaze. Our eyes fail to tell us how far they are away from us, or how distant they are from one another. But the realization of the past is perhaps more difficult; and History, be it remembered, is studied before Astronomy. Nevertheless, the teaching of History finds a place among the subject of instruction of this strictly Real-Schule; and in order to give it a real character, and to bring home to the child's mind the method of historical research, so that the word "authenticity" may have a clear signification, the teaching of History proceeds from what is near to what is remote. Commencing with the study of family life, and passing to the history of the city itself, to the changes that have taken place in its structure, in its streets and buildings, &c., and proceeding thence to the history of the reigning king, and the events of the last few years, the teacher works back to a period within the memory of the parents of his pupils, whose reminiscences are made available, in order to furnish the child with the notion of tradition. From our own history to the history of other peoples the transition is easy. In bringing home to the child's mind the surroundings of bygone periods, frequent use is made of pictures, maps, and other objects that serve to illustrate the habits and conditions of the people, and equally of contemporary narratives where any exist.

The illustrations that I have taken of the methods of teaching adopted in this school will be sufficient, I think, to give you some idea of its end and aims, and of the means by which it is thought this end can best be attained. To those seeking further information, and who are not disposed to visit the school, I can recommend the perusal of a small work devoted to a description of the Ecole Modèle, and published by the Ligue de l'Enseignement. From this work I have taken the time-table of the school, the consideration of which will conclude my imperfect description of the interesting experiment in pedagogic science.

The time-table shows that the school-hours are from 8 in the morning till 4 in the afternoon—8 hours in all. But as there is ¼ of an hour's free recreation between each lesson, and 1½ hours for dinner in the middle of the day, the school-hours are reduced to 33¼ in the week, or about 6 hours a day. Of these 33¼, 7 are devoted to gymnastics, drill, &c., reducing the number to 26¼. This distributed over 5 days, as is the case with us, would give 5¼ hours a day, say, from 9-30 till 12-30, and from 2 till 4. You will observe that the attempt is made so to arrange the order of the subjects each day as to ensure the occupation of different faculties in turn. Further, you will note that the greatest amount of time is given to language; and that Flemish is taught as well as French. In a country where the language of the people did not differ from that of the educated classes, this would be unnecessary, and another modern language might be substituted. Under the head of language is understood reading, writing, dictation, recitation, and grammar

Science stands next in order, as regards time given to it, with 5½ hours in the week. The subjects of geometry and drawing overlap to some extent, and we find 5½ hours given to the two subjects. Gymnastics and exercise also take a fair share of the week's work—7 hours.

It is satisfactory to me to see present, this evening, others whom I had the pleasure of meeting at Brussels, and who will supplement much that I have left unsaid in my description of the school. I have only to remark, in conclusion, that it has been my duty this evening to describe, and not to criticise. I have pronounced no opinion on the merits of the details of the organization of this school. Should we ever be fortunate enough, which I trust we may be, to have a Model School of our own, it will be necessary to elaborate a scheme of instruction, and the critical consideration of the scheme École Modèle will be found of the utmost use. Meanwhile, all who are interested in the advancement of primary instruction must be grateful to the Ligue de l'Enseignement for the opportunity afforded by this school of enabling educational investigators to see the practical results of methods of teaching, and of the applications of theoretic principles to the work of instruction, which a variety of circumstances, too potent to be set aside, prevent our observing in our own schools. I have no doubt whatever that the foundation of a Model School in London would do more to improve primary teaching throughout England, and so raise the moral, intellectual, and physical well-being of our working classes, than the publication of any quantity of books, or the delivery of any number of lectures or speeches on the principles of education. Of making of speeches there is no end; let us now have facts and experiments. Such a school might be established by the School Board; by private subscriptions; or it might be founded, for paying pupils, as a public company, in which case, as in the High Schools for Girls, a fair dividend might be gained on the subscribed capital. I should esteem myself too much rewarded for the little trouble I have had in bringing before you this description of the Brussels School, if the remarks I have made should lead to the establishment of a Model School in this country.

Finally, I have only to say, that so far as I am able I shall be glad to answer any questions that may be put to me, on any point that may not have been sufficiently explained in my very incomplete description of the École Modèle of Brussels.

PHILIP MAGNUS.

A LECTURE ON THE "STANDARD PRONUNCIATION OF ENGLISH" BY MR. ALEXANDER J. ELLIS, B.A., F.R.S., F.S.A., F.C.P., PRESIDENT OF THE PHILOLOGICAL SOCIETY, Nov. 17, 1880.

It is rather hard for a lecturer to confess that the title he has chosen for his lecture is, strictly speaking, nonsense; and moreover, when he has contrived, by considerable latitude of interpretation, to give his title some real meaning, it is humiliating to confess

that the thing about which he has to lecture does not exist, certainly never has existed, and very possibly never will exist.

Let me begin with the nonsense. What is language? Nothing whatever but a series of spoken sounds, by means of which thought is conveyed from a speaker to a listener. The mysterious link between sound and sense, I shall not endeavour to describe. After all that has been said about it, its nature is entirely unknown, and its existence is certain. This must suffice us to-night. I am speaking, and you, more or less correctly, follow my thoughts, each probably slightly differently from his neighbour, and every one almost certainly differently from myself. Yet, substantially, we understand one another. The generic agreement, and the specific disagreement, are however both important factors in the science of language. But now suppose I should call upon each of you in turn to read from my manuscript. Would you each utter the same sounds, and each adopt my sounds? I should be extremely surprised if this were nearly true, excluding, of course, all but natives of England. Are we then speaking the same language? Each of us understands the speaker as before, and follows the thoughts. Hence there would be, as before, a substantial generic agreement, and a specific but noteworthy disagreement. You might indeed find it difficult to discover the difference of the sounds, because your attention would be fixed on the sense, and you have been accustomed all your lives to overlook specific differences, and be content with generic agreement. It is necessary, I find, for this purpose, to withdraw the mind as much as possible from the matter, and fix it on the manner. Otherwise only very glaring differences strike the listener. And it is well that this is the case, as otherwise intelligibility would be rare. The point which I want to impress upon you is, that every one of us has his or her own peculiar set of spoken sounds to convey thought, that is, his own private language, which is more or less different from that of each one about him.

But what is pronunciation? In the modern acceptation of the word, it is the utterance of spoken sounds. Hence, when I am talking of the pronunciation of a language, I am talking of the set of spoken sounds of a set of spoken sounds,—which, if not nonsense, is very like it. Let us see then if we can bend this notion into some sort of sense. Each of us has his own language. Good. How did he acquire it? I am not going into the question of origins, nor shall I trouble you with discussion of whether the first fowl came from an egg, or the first egg from a fowl. Each of us here present, at any rate, acquired our set of spoken sounds in the first instance by hearing those around us and endeavouring to imitate them, in which we never exactly succeeded, and endeavouring to attach the same meaning to each of those sounds we imitated as the speaker did, in which we succeeded perhaps still less. Hence the language of each of us is more different both in sound and sense from the language of our fathers, than from that of our contem-

panies who have had similar environment. This is the origin of that secular change of language which in the course of a few hundred years produces very wide differences indeed. But while we thus change both the sounds and their senses, we have the full feeling that we preserve both. To our minds the words remain, and it is only their form is changed, as a man remains the same from boyhood to old age, although sufficiently different to be almost unrecognizable to one who has not seen him in the interval. We express this by saying that the language has remained the same (meaning that words in themselves are the same), but that its pronunciation and acceptation have altered. It is the case of the highlander's knife over again. He put a new blade, and his father a new haft, but it's his grandfather's own knife all the same. Hence arise the conceptions of persistent language and changing pronunciation and acceptation. I dismiss the latter, though it would be well worth an hour's excogitation, because I shall have my hands more than full of the former.

Now there comes a new and an entirely artificial element into consideration. The changes we have been discussing were quite natural, arising only from our powers of appreciating and imitating sound, and supplying sense. You may think that I made a great omission in defining language as a series of sounds, because I did not consider the born deaf and dumb. I purposely left them to this place. Their language is addressed not to the ear but to the eye. There may therefore be a visible as well as an audible language. And this will no doubt follow similar laws of change. But I wish to consider visible, simply in relation to audible language. As a sound calls up a thought, may not a sign, instead of calling up the thought immediately, do so mediately by calling up the sound first? We all know that it does. You are quite aware that I am reading, that I have before me a series of signs which by long association recall to my mind the series of sounds by which I hope, more or less accurately—rather less than more, I fear—to make your mind conceive a certain series of thoughts. The imitate character of writing is thus very evident. How it arose is, roughly, well known. There was first the picture of an object, which recalled its name at once. Then there was the use of that picture, or a sketch of it, gradually growing more and more conventional to recall only the beginning of its name—forming a syllabary. Then the grouping of several of these parts of words to form a new word. Finally, the reduction of a syllabary to an alphabet, where each sign represented much more nearly an element of sound. This is one process, and it prevails in its ultimate form in Europe. But there was another. The series of signs were as before reduced to mere scratches, but were never referred to the sound. They remained, as to the born deaf, a visible language which called up the idea directly, and these ideas were combined in forms, roughly adumbrating the actual combination of ideas in thought. This wonderful contrivance exists

in China, as a true medium of thought. Strangely enough, these visible signs recall totally different and mutually unintelligible series of sounds to the hundreds of millions of people who use them, to which the only European analogue is the Arabic numerals which are used as the same visible language of calculation, recalling in different countries mutually unintelligible sounds, but the same mutually intelligible conception. We see, then, by these two instances, that we may have symbols which recall thoughts first and spoken sounds or language afterwards. These two methods of record should be kept distinct. The true European notion was to recall sounds, by means of an analysis of them into their elements, and thus to fix and perpetuate the series of sounds used at any time. These visible symbols possessed the great advantage over the audible—they were permanent, they could be exactly reproduced at any time, they did not appeal to the memory for the multitudinous whole, but for a few comparatively insignificant parts, of which the whole was compound. The sound fled, and was recalled, often very incorrectly, by an effort of memory. The sign remained, and could be referred to at any moment, and for as long as we pleased. What wonder, then, that the collection of written symbols came to be considered as the language, and each little group one of its words, and the sound that was to be attached to it, its pronunciation. It is generally in this sense that we speak of the pronunciation of a language at the present day. Nothing would seem to be easier. Here we have the symbol which is compounded of a few out of twenty to fifty different signs, more or less, the meaning of each we are supposed to know, together with the mode of combining those meanings—hey! presto! there's the word!

Not so fast unfortunately. A good many untoward circumstances have tended to spoil this happy result. In the first place, the original analysis was very faulty and inefficient. In the second place, the conception was so brilliant, that symbols intended for one set of sounds were incontinently borrowed, and used in a new sense by nations who had different sets of sounds, and we don't know how they used them. England, Germany, France, Spain and Italy, for example, all use the Latin letters, but he would be a very wizard who could tell us, from knowing how the Romans spoke and seeing the written symbols of these modern nations, how the English, Germans, French, Spaniards, and Italians sounded the borrowed symbols. In the third place, the persons who were at first able to write or read the symbols, were few and far between, and the tradition of the sounds and the meaning of alphabetic writing was so little appreciated by those who had to do the work, that the same symbol was more or less allowed to remain, even after the sound it was meant to recall had already past. This misfortune became still worse after the invention of printing, when a mechanical reproduction of visible forms was of more importance than an intelligent grouping of them in the alphabetic spirit. In our own country in

particular, the changes of sounds so far outran the changes of signs (as I have learned from my own especial studies during the last fourteen years, so that I am speaking from actual knowledge and not from conjecture), that we are practically reduced to the Chinese state of a visible language, without its beautiful representation of combined thoughts by combined symbols, and have actually to memorise the sound to be given to each of the many thousand written symbols of the language, which it is our lot to have to read and write. That is, our visible words are dumb, and we have to trust to teachers and our memory to make them speak. Hence, then, we have a very new, very urgent, and very important meaning to attach to the pronunciation of words. Most of us,—I can answer for myself and yet I have been a wide reader for more than half a century and have devoted much more time than men are generally able or willing to devote, to the study of the sounds of our language and their connexion with the written symbol,—most of us, I say, are continually coming across written words which we have never heard, and which therefore we do not know how to vocalise. What do we do? Ask some one who knows. But where to find him? Turn up the words in a pronouncing dictionary, where the relation of sign to sound is restored. But how do we know that the writer of that dictionary knew? Where and how did he get his knowledge? Is it knowledge at all, or is it guess, at best mere analogy? That's the complexion to which most of these dictionary makers come in the long run. Buchanan, the Scotchman, who published one of the earliest pronouncing vocabularies in 1765: Sheridan, the Irishman, who brought out the first pronouncing dictionary in 1780, just one hundred years ago; Worcester, the American, whose work is just now in the ascendant; how do these know better than many millions of educated Englishmen, whom they kindly undertake to teach, how to pronounce English? John Walker and Benjamin Smart were indeed worthy Englishmen, who laboured hard at their vocation, but did not they too often, well, say, invent and lay down the law, act as the fate of words, and tell people, *not* how those to whom the words were familiar really spoke them, *but* how those apostels determined that they *ought* to be pronounced.

And this brings me at once to the very subject of my lecture, which you must have fancied I was not going to begin till it was time to go away. The pronunciation of different people at any one time is different. The pronunciation of different people at different times is still more different. The words with which our vocabulary teems were invented at different times (I had to invent the word "apostels" just this minute), and how is the tradition of their original form to be preserved? What is the series of sounds to be attached to our written symbols at any given time, say this moment, and why? In other words, what is the standard pronunciation at which we are all to aim? And here comes my humiliation, as I commenced by averring. There *is* no standard, there never was a

standard, and, so far as I can see, there never *will be* a standard pronunciation of English or of any other language in the world.

"Oh, come!" I can fancy your thinking, "that's jumping a little too high. Is not your own pronunciation up to the standard?" How can it be, if there is no standard to come up to? No one can take the politest pocket dictionary, and give you the pronunciation you *ought* to adopt of every word. He may tell you—with much hesitation at times—the pronunciation he himself adopts of such words as he uses. Nay more, he can tell you in many cases pronunciations differing from his own, of many of the same written words, employed by persons quite as well fit to have an opinion on the subject as himself. But there will be sure to be a number of words he never heard, and perhaps never used, or words which he has used and sounded on the spur of the moment, not knowing whether other people pronounced in the same way, and possibly finding out afterwards (it has occurred to me) that they *didn't!* Also, if he has studied the subject, especially if he has looked at it historically, he may be able to see what pronunciation would best suit the analogies of other similar words with which he is more familiar, and he may therefore recommend pronunciations; but let him beware of saying that such pronunciations *ought* to be adopted, if he does not wish to be knocked down at once by some forgotten analogy. We have in fact absolutely no standard, and those who set up as authorities differ constantly from each other. Worcester (1846) has paid great attention to this part of his subject, and generally gives under each word the opinions of Sheridan 1780, Walker 1791, Jones 1798, Fulton and Knight 1802, Perry 1805, Enfield 1807, Jamieson 1827, Webster 1828, Knowles 1835, Smart 1840, Reid 1844, as well as his own, and to these should be added Call in Ogilvy, while perhaps the cheapest and most widely spread pronouncing dictionary is Nuttall's. I cannot give the dates of the first editions of the two last, but they are comparatively recent. Each of these writers endeavours to convey the sounds by means of a revised alphabet in which the words are re-spelled. But there is a difficulty in explaining what are the sounds to be attributed to the new letters, and how these sounds affect each other in combination. Very few, if any, of the writers cited had thoroughly studied the sounds of human speech (Smart and Call are the best exceptions), and their mode of representation is often so deficient that I, who have had to study many of them with minute and laborious accuracy in order to dig out their precise meaning, have frequently failed in my endeavours. But I abstain from criticism, as I should weary you, and time would fail me if I were so rash as to go into the minutiæ of speech sounds. It is, however, deserving your attention, that we have not yet a system of even expressing speech-sounds and their combinations, with sufficient accuracy and sufficient durability, to really record a standard pronunciation with such accuracy that our symbols could be read and the sounds repro-

duced a hundred years hence. We must be content with roughly indicating it.

(To be continued.)

GOVERNMENT CENTRAL BOOK DEPÔT.

LIST OF NEW BOOKS RECEIVED IN THE GOVERNMENT CENTRAL BOOK DEPÔT, BOMBAY, FROM 16TH OCTOBER TO 15TH NOVEMBER 1889.

Fresh Supply received from England.

ENGLISH.	Rs.	a.	p.
Laurie's Copy Books Nos. 4, 9, and 10, each at	0	1	4
Do. Introductory Reader (Technical Series).....	0	4	0
Do. Technical Reader Book I. (do.)	0	5	4
Do. do. Book II. (do.)	0	6	0
Do. do. Book III. (do.)	0	6	8
Do. do. Book IV. (do.)	0	8	0
Do. do. Book V. (do.)	0	10	0
Do. do. Book VI. (do.)	0	12	0
Royal Reader No. I. (Nelson's Royal School Series)	0	2	8
Do. No. II. (do.)	0	4	8
Do. No. III. (do.)	0	8	0
Do. No. IV. (do.)	0	12	0
Do. No. V. (do.)	1	0	0
Do. No. VI. (do.)	1	4	0
Lethbridge's Easy Introduction to the History of India...	0	12	0
Scott's Ivanhoe	0	4	0
Edgeworth's Moral Tales	1	12	0
Nuttall's Walker's Pronouncing Dictionary.....	0	8	0
Arabian Nights' Entertainments (Nimmo)	2	8	0
Do. do. do. (Milner)	0	8	0
Adams's English Language	2	4	0
Gems from the "*Spectator*"	0	8	0
Webster's English Dictionary, Unabridged Pictorial Edition, with appendices	15	12	0
Do. do. do. without do.	10	8	0
Collier's History of the British Empire for senior classes.	1	4	0
Do. do. do. for junior classes.	0	12	0
Edith Thompson's History of England.....	1	4	0
Todhunter's Algebra for Colleges and Schools.....	3	12	0
Pope's Homer's Iliad (Milner)	0	8	0
Æsop's Fables (Milner)	0	8	0
Scott's Lady of the Lake (do.)	0	8	0
Cowper's Poetical Works (do.)	0	8	0
Cooke's Universal Letter-Writer	0	8	0
Day's History of Sandford and Merton.....	0	8	0
Mackay's Outlines of Geography	0	8	0

	Rs.	a.	p.
Curtis's Outlines of the History of England	0	4	0
Lamb's Tales from Shakespeare	0	8	0
Barnard Smith's Arithmetic	2	4	0
Colenso's Arithmetic	2	4	0
Macaulay's Essays	1	12	0
Shakespeare's Julius Cæsar by Hunter	0	8	0
Sir Roger de Coverly	0	8	0
Austen's Pride and Prejudice	0	12	0
Do. Mansfield Park	0	12	0
Scott's Copy Slip, No. 30	0	1	8
Macaulay's Pitt and Chatham	0	8	0
Nelson's Brief History of England	0	4	8

LATIN.

Cornelius Nepos, with notes by R. Young	0	8	0
Latin Delectus, by R. Young	0	8	0
Cicero's Orations against Catiline (Weale's Series)	0	12	0
Sallustii Catilina et Jugurtha (Chambers's)	0	12	0

New Books purchased by the Department.

GUJARATI.

Arogya Vidya, being a translation of Cunningham's Sanitary Primer	0	1	3

PERSIAN.

Sorabshá B. Doctor's Second Book of Persian	1	4	0

New Editions published.

Hope's Departmental Gujarati Sixth Book. 9th Stereotyped Edition	0	10	0
Departmental Kanarese First Book, Second Edition	0	1	6
Kielhorn's Grammar of the Sanskrit Language, Second Edition, revised	2	2	0
Map of the Bombay Presidency in Devanagari character, coloured and mounted on cloth with rollers	3	0	0

N. V. BAPAT,
Curator.

APPOINTMENTS AND CHANGES.

MONTHLY LIST OF APPOINTMENTS AND CHANGES IN THE EDUCATIONAL DEPARTMENT FROM 16TH OCTOBER TO 15TH NOVEMBER 1880.

18*th October* 1880.—Mr. G. K. Parekh is permitted to resign his post as Deputy Educational Inspector, Gujarati Schools, Bombay.

18*th October* 1880.—Leave without pay, from 17th November 1880 to 16th March 1881, is granted to Mr. M. S. Kashikar, Sixth Assistant Master, Ratnagiri High School.

18*th October* 1880.—Mr. V. S. Padvekar is appointed substantive *pro tem.* Sixteenth Assistant Master, Poona High School, *vice* Mr. Mitra, resigned.

21*st October* 1880.—Leave without pay, from August 23rd to September 11th, 1880, is granted to Mr. Modi, Agricultural Teacher in the Branch High School.

21*st October* 1880.—The unexpired portion (eleven days) out of a month's leave without pay, granted to Mr. Mehta, Third Assistant Master, Junagadh High School, is cancelled.

23*rd October* 1880.—Mr. Rango Balkrishna Atre, F.E.A., Twelfth Assistant Master, Poona High School, is appointed substantive *pro tem.* Eleventh Assistant Master in the same school.

23*rd October* 1880.—Mr. Vinayak Anant Bapat, Fourth Assistant Master, Poona High School, is appointed substantive *pro tem.* Twelfth Assistant Master in the same school.

23*rd October* 1880.—Mr. Ramchandra Jagonnath Godbole, F.E.A., Fifteenth Assistant Master in the Poona High School, is appointed substantive *pro tem.* Fourteenth Assistant Master in the same school.

23*rd October* 1880.—Mr. V. S. Padvekar, substantive *pro tem.* Sixteenth Assistant Master, Poona High School, is appointed substantive *pro tem.* Fifteenth Assistant Master in the same school.

23*rd October* 1880.—Mr. Shitaram Mohaniraj Tole is appointed Acting Sixteenth Assistant Master in the Poona High School.

23*rd October* 1880.—One year's leave, without pay, is granted to Mr. Vithaldas Dhanji, First Assistant Master, Rajkot Training College.

23*rd October* 1880.—Mr. Harilal Kahandas, Assistant Master, Rajkote High School, is appointed substantive *pro tem.* First Assistant Master, Rajkot Training College.

23*rd October* 1880.—One year's leave, without pay, is granted to Mr. Bulakhidas, Sanskrit Teacher, Training College, Ahmedabad.

23*rd October* 1880.—Mr. Paragji Valabhram, First Assistant Master, Ahmedabad Branch School, No. II., is appointed Head Master, Kaiargam Vernacular School.

23*rd October* 1880.—Mr. Chaturbhai Bhogilal, Head Master, Katargam Vernacular School, is appointed Head Master, Vernacular School, Rander.

23*rd October* 1880.—Mr. Gulabdas Gopaldas, Head Master, Vernacular School, Rander, is appointed Head Master, Vernacular School, Olpad (Taluka School).

23*rd October* 1880.—Mr. Narmadashankar Kambashankar, Head Master, Olpad Taluka School, is appointed Head Master of the Taluka School at Ankleśar.

23*rd October* 1880.—Mr. Gulabdas Dayaram, Head Master, Taluka School, Ankleśar, is appointed Head Master, Vernacular School, No. 1, Surat.

23*rd October* 1880.—Mr. Y. V. Jadhava, Third Assistant Master (Marathi side), Belgaum High School, is appointed substantive *pro tem.* First Assistant Master (Kanarese side), in the same school.

23*rd October* 1880.—Mr. M. S. Apte, Fourth Assistant Master (Marathi side), Belgaum High School, is appointed substantive *pro tem.* Third Assistant Master in the same school.

23*rd October* 1880.—Mr. H. V. Kelkar, Sixth Assistant Master (Marathi side), Belgaum High School, is appointed substantive *pro tem.* Fourth Assistant Master in the same school.

23*rd October* 1880.—Mr. V. K. Mahajan is appointed substantive *pro tem.* Sixth Assistant Master in the Belgaum High School.

25*th October* 1880.—Mr. D. B. Sahasrabudhe and Mr. V. K. Bhat, the Seventeenth and Eighteenth Assistant Masters in the Poona High School, are confirmed in their respective posts.

27*th October* 1880.—A month's privilege leave is granted to Mr. Harivalabdas Mulji, Assistant Deputy Educational Inspector, Broach and Kaira.

28*th October* 1880.—Four months' leave on private affairs is granted to Mr. Hari Narayan Kirpekar, Fifth Assistant Master, Dhulia High School.

30*th October* 1880.—One year's leave without pay is granted to Mr. Ganesh Gopal Pandit, Fourth Assistant Master, Poona High School.

3*rd November* 1880.—Mr. Fatechand Vasanmal is confirmed as Seventh Assistant Master, Hyderabad High School, from the 1st of April 1878.

11*th November* 1880.—Four months' leave without pay is granted to Mr. R. B. Nimbkar, Seventh Assistant Master, High School, Dhulia.

By order of the Director of Public Instruction,

JNO. BOCARRO,
Head Assistant.

Poona, Office of the Director of Public Instruction,
20*th November* 1880.

DIRECTORY

OF THE

BOMBAY EDUCATIONAL DEPARTMENT

FOR 1879-80.

No. 2162 of 1864-65.

MEMORANDUM.

1. The Directory of the Department of Public Instruction, as it stood on the 1st November 1864, has been officially drawn up with the following objects in view :—

(a)—To show at a glance the personal resources of the Department, and to facilitate a comparison of the claims of different persons for any appointment that may be vacant.

(b)—To lead the way to future organization and order, by pointing out anomalies where they exist in pay or position.

2. It is expected that this Directory will be useful both to the Government and to the Educational Authorities, and that it will be an encouragement to Students to aim at University distinctions, when they see that these are officially recorded and made to constitute a claim to promotion. It is, however, by no means intended to introduce any sudden revolution, or to set aside the claims of those who ably served in the Department perhaps before the University of Bombay came into full operation. Besides length of service, which will always be duly recorded, there are personal qualifications, often more valuable than University distinctions, but which can find no record in a Directory. It is hoped, then, that while the Directory will tend to correct many mistakes, the personal knowledge of Educational Inspectors, and other authorities, may also serve to correct the Directory.

A. GRANT,

Acting Director of Public Instruction.

Bombay, 6th December 1864.

No. 4050 of 1879-80.

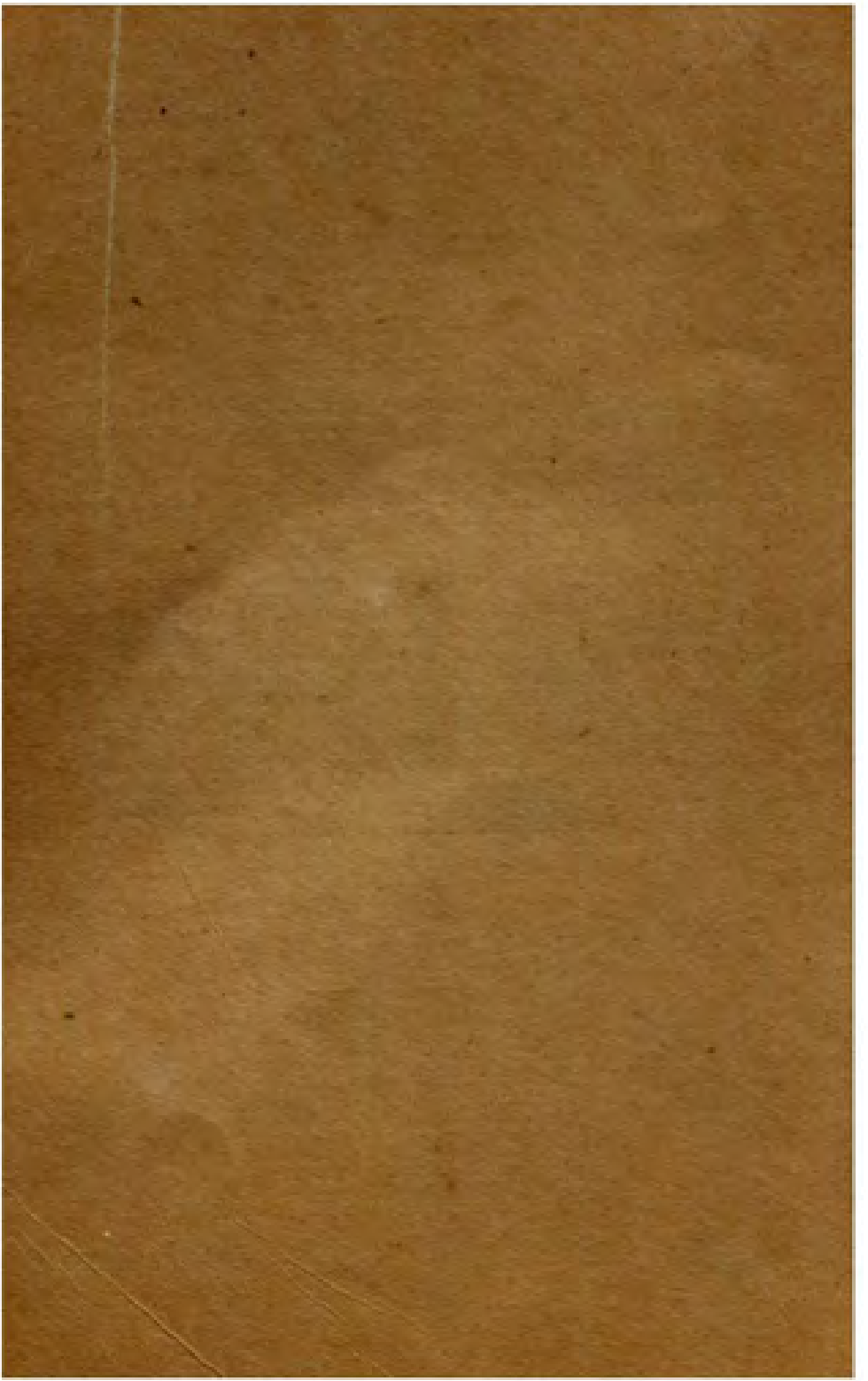
Office of the Director of Public Instruction,
Poona, 10th December 1879.

MEMORANDUM.

Reprinted to accompany the Directory of 1879-80.

E. M. CHATFIELD,

Director of Public Instruction.



SUPPLEMENT

TO THE

Bombay Educational Record,

MARCH 1880,

BEING

THE DIRECTORY

OF THE

BOMBAY EDUCATIONAL DEPARTMENT FOR 1879-80.

SIXTEENTH ISSUE.

The Bombay Educational Record.

VOL. XVI., 1880.

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DIRECTORY OF THE DEPARTMENT OF PUBLIC INSTRUCTION, 1st NOVEMBER 1879.

I—629 a

A.—SUPERIOR APPOINTMENTS.

No.	NAMES.	Degree, if any.	University, if any.	Indian Languages in which passed.	Length of service in the Department.	Present Appointment.	Monthly Salary.	TOTAL.	REMARKS.
1	2	3	4	5	6	7	8	9	10
					Y. m. d.		Rs. a. p.	Rs. a. p.	
1	K. M. Chitfield	M.A.	Oxford ..	None ..	13 3 3	Director of Public Instruction	2,500 0 0	2,500 0 0	
	THE GRADED LIST.								
	1st Grade (1), Rs. 1,250 to Rs. 1,500.								
2	T. Wedlington, Colonel, Staff Corps.	None.	None ..	Hindustani and Marathi.	28 0 1	Educational Inspector, Central Division .. .. Travelling allowance .. .. Tentage allowance	1,500 0 0 100 0 0 11 2 9	1,611 2 9	On medical certificate to Europe for 1 year, from 2nd November 1879.
3	W. Wordsworth ..	B.A.	Oxford ..	None ..	13 9 20	Principal and Professor of History and Political Economy, Elphinstone College	1,500 0 0	1,500 0 0	
	2nd Grade (1), Rs. 1,000 to Rs. 1,250.								
4	T. C.—ks	M.A., M.T., LL.D	Dublin ..	Hindustani (Col.)	13 3 20	Principal, Civil Engineering College .. .. .. Acting 1st Grade	1,250 0 0 150 0 0	1,400 0 0	

No.	Name.	Degree, if any.	University, if any.	Indian Languages in which passed.	Length of Service in the Department.	Present Appointment.	Monthly Salary	Total.	Remarks.
1	2	3	4	5	6	7	8	9	10
	2nd Grade—continued.				Y. m. d.		Rs. a. p.	Rs. a. p.	
5	J. G. Bühler, C.I.E. ..	Ph. D.	Gottingen.	None ..	16 8 10	Educational Inspector, Northern Division	1,250 0 0		
						Travelling allowance	100 0 0		
						Tentage allowance	11 1 9	1,361 1 9	
6	R. G. Oxenham.. ..	M.A.	Oxford ..	None ..	16 1 22	Principal and Professor of English Literature, Deccan College	1,250 0 0	1,250 0 0	
7	C. Monaghan.. ..	M.A.	Cambridge.	Hindustani and Persian.	8 9 20	Principal, Rájkumár College	1,200 0 0	1,200 0 0	
	3rd Grade (5), Rs. 750 to Rs. 1,000.								
8	W. A. Russell	M.A.	Oxford ..	Marathi ..	13 11 12	Educational Inspector, Southern Division	1,150 0 0		Draws Rs. 100 more than the highest pay in the grade.
						Travelling allowance	100 0 0		
						Tentage allowance	11 1 9	1,211 1 9	
9	F. Kielhorn	Ph. D.	Leipsic ..	None ..	13 6 2	Professor of Oriental Languages, Deccan College ..	1,000 0 0		On furlough to Europe for 10 months, from 3rd February 1879.
10	S. Cooke	M.A., L.C.E.	Dublin ..	None ..	10 10 5	Professor of Chemistry and Geology, Poona Civil Engineering College	1,000 0 0	1,000 0 0	

11	J. T. Hathornthwaite ..	M.A.	Cambridge	Hindustani	7 0 23	[Professor of Mathematics, Elphinstone College ..	800 0 0		800 0 0	
12	P. Peterson *	M.A., B.A.	Edinburgh, Oxford	None ..	6 9 30	Professor of Oriental Languages, Elphinstone College	750 0 0		750 0 0	
	4th Grade (S), Rs. 500 to Rs. 750.									
13	E. Giles	B.A.	Oxford ..	Hindustani	6 2 14	Educational Inspector, North-East Division Acting 3rd Grade	750 0 0			
						Travelling allowance ..	100 0 0			
						Tonnage allowance	11 1 9		861 1 9	
14	T. B. Kirkham	None.	University College, London.	Marathi and Gujarati.	17 4 10	Professor of English Literature, Elphinstone College Acting in the 2nd Grade as Educational Inspector, Central Division	750 0 0			
							250 0 0			
						Travelling allowance ..	100 0 0			
						Tonnage allowance	11 1 9		1,111 1 9	
15	J. Scorgie	None.	Aberdeen ..	None	4 8 25	Professor of Mechanics and Applied Sciences, Poona Civil Engineering College.	750 0 0		750 0 0	Mr. Scorgie served under the Government of India from the 12th of November 1866. On furlough to Europe for one year, from 14th April 1870.
16	F. C. Selby	B.A.	Oxford ..	Marathi ..	2 8 22	Professor of Logic and Moral Philosophy, Deccan College	600 0 0		600 0 0	
17	M. MacMillan	B.A.	Oxford ..	None ..	2 4 13	Professor of Logic and Moral Philosophy, Elphinstone College	600 0 0		600 0 0	

No.	Names.	Degree, if any.	University, if any.	Indian Languages in which passed.	Length of service in the Department.	Present Appointment.	Monthly Salary.	Total.	Remarks.
1	2	3	4	5	6	7	8	9	10
					Y. m. d.		Rs. a. p.	Rs. a. p.	
18	G. W. Forrest ..	B.A.	Cambridge.	None ..	0 10 13	Professor of Mathematics, Deccan College	500 0 0	500 0 0	
	Gujarát College.								
19	K. T. Bird ..	M.A.	Oxford ..	None ..	14 1 29	Principal and Professor of English Literature, Gujarát College, and Head Master, Ahmedabad High School	700 0 0	700 0 0	
20	Atmáji Vithoba Kathawate	B.A.	Deccan College.	None ..	9 6 11	Professor of Oriental Languages, Gujarát College ..	250 0 0	250 0 0	
21	Jamsetji Ardeshar Dalal	M.A., LL.B.	Elphinstone College.	None ..	6 4 22	Professor of Mathematics, Gujarát College	250 0 0	250 0 0	
	Law School.								
22	K. T. Telái, Barrister-at-law.	LL.M.	None ..	None ..	9 4 0	Government Professor of Law	300 0 0	300 0 0	
23	W. Webb	None.	None ..	None ..	6 1 19	Government Professor of Law	500 0 0	500 0 0	
24	James Jardine	M.A.	Cambridge.	None ..	5 10	Perry Professor of Jurisprudence	250 0 0	250 0 0	

	Grant Medical College.									
26	H. Cook	M.D.	St. Andrew's.	Hindustani Staff.	8	4	29	Principal and Professor of Medicine, Grant Medical College	1,500 0 0	
								Professor of Hygiene ..	300 0 0	1,800 0 0
28	W. Dymock	B.A.	Oxford ..	Persian and Hindustani.	13	3	7	Professor of Materia Medica, Grant Medical College ..	1,375 0 0	1,375 0 0
37	A. N. Hojel	L.R. and Q.C.P.	Dublin ..	Hindustani Staff.	3	9	9	Professor of Physiology, Grant Medical College ..	1,375 0 0	1,375 0 0
39	E. J. Blanc	M.D.	Paris ..	P.H.	3	5	24	Professor of Surgery and Clinical Surgery, Grant Medical College	1,375 0 0	1,375 0 0
29	I. B. Lyon	None.	None ..	None ..	13	7	29	Professor of Chemistry ..	1,150 0 0	
								Do. of Medical Jurisprudence, Grant Medical College	200 0 0	1,350 0 0
27	G. Bainbridge	None.	None ..	Hindustani and Marathi	1	5	13	Acting Professor of Ophthalmic Medicine and Surgery, Grant Medical College	1,100 0 0	
								Acting Professor of Comparative Anatomy, Grant Medical College	100 0 0	1,200 0 0
31	H. Cook	M.D.	Queen's, Ireland.	None ..	0	4	20	Acting Professor of Anatomy and Curator of the Museum, Grant Medical College	1,000 0 0	1,000 0 0
21	A. H. Hughes	M.D.	Boston ..	[illegible] U.S.	4	11	23	Professor of Midwifery and Diseases of Women and Children, Grant Medical College	925 0 0	925 0 0

No.	Name.	Degree, if any.	University, if any.	Indian Language in which passed.	Length of Service in the Department.	Present Appointment.	Monthly Salary.	Total.	Remarks.
1	2	3	4	5	6	7	8	9	10
	Grant Medical College—continued.				Y. m. d.		Rs. a. p.	Rs. a. p.	
18	J. Arnott	M.D.	Glasgow ..	Hindustani, L.S.	9 11 6	Professor of Pathology. ..	875 0 0	875 0 0	On Military duty.
18	W. K. Hatch	M.B.	Aberdeen..	Hindustani, L.S.	0 9 28	Acting Professor of Pathology	383 5 0	383 5 0	
35	W. F. Knight	None	None ..	Hindustani, L.S.	9 6 15	Professor of Anatomy and Curator of Museum, Grant Medical College	428 2 2	428 2 2	On medical certificate to Europe.
39	G. A. Macmichie ..		Aberdeen..	Hindustani.	7 9 12	Professor of Ophthalmic Medicine and Surgery .. Professor of Comparative Anatomy	425 0 0 100 0 0	525 0 0	On furlough to Europe.
37	Bakharam Arjun ..	L.M.	Bombay ..	Collegiate Hindustani.	0 4 12	Acting Professor of Botany, Grant Medical College ..	350 0 0	350 0 0	
20	W. Gray	M.D.	Dublin ..	None ..	12 11 9	Professor of Botany, Grant Medical College	200 0 0	200 0 0	On medical certificate to Europe.
	Sir Jamsetji Jijibhoy School of Art and Industry.								
19	C. Mudd, Major, R.E. ..	None	None ..	Urdu High Proficiency, Marathi and Gujarati.	1 0 17	On special duty, Sir Jamsetji Jijibhoy School of Art	216 2 0	216 2 0	"Deputation allowances."

42	G. W. Terry	None.	None ..	None ..	22 3 27	Superintendent, Sir Jamsetji Jijibhoy School of Art	700 0 0	700 0 0			
43	J. Griffiths	None.	None ..	None ..	18 11 8	Decorative Artist and Architectural Sculptor	800 0 0	800 0 0	On leave to Europe from 17th May 1918.		
49	J. Adams	None.	None ..	None ..	0 1 0	Instructor in Architectural Drawing	150 0 0	150 0 0	Remuneration sanctioned during absence of Mr. Griffiths.		
	MISCELLANEOUS.										
42	H. P. Jacob	None.	Oxford ..	Marâthi ..	19 11 11	Principal, Elphinstone High School	300 0 0				
						House-rent	100 0 0	500 0 0			
44	Ramkrishna Gopal Bhandarkar.	M.A.	Bombay ..	Sanskrit ..	15 1 15	Acting Professor of Oriental Languages, Deccan College	700 0 0	700 0 0			
45	Rao Bahádur Deji Nilkant Nagarkar.	None.	None ..	None ..	29 2 5	Professor of Mathematics, Civil Engineering College.	650 0 0	650 0 0	Acting for Professor J. Scoggie		
46	Rao Sáheb Bhogilal Premvallabhdas.	None.	None ..	None ..	8 7 19	Director of Vernacular Instruction, Baroda State ..	600 0 0	600 0 0	From Baroda State.		
47	Wazan Abaji Modak ..	B.A.	Bombay ..	Sindhi ..	15 8 9	Acting Head Master, High School, Poona	600 0 0	600 0 0			
48	Mahadeo Moreshwar Kunte.	B.A.	Bombay ..	Sindhi and Sanskrit.	15 2 20	Acting Assistant Professor of Sanskrit, Elphinstone College	500 0 0	500 0 0			

No.	Name.	Degree, if any.	University, if any.	Indian Language in which passed.	Length of service in the Department.	Present Appointment.	Monthly Salary.	Total.	Remarks.
1	2	3	4	5	6	7	8	9	10
					Y. m. d.		Rs. a. p.	Rs. a. p.	
	Maratha Assistants—contd.								
49	A. Barrett	B.A.	Lampeter	Marathi and Gujarati.	14 2 16	Acting Professor of English Literature, Elphinstone College	800 0 0	800 0 0	
50	Moulvi Attaullah Turkhadgar	None.	None	None	8 0 29	Vice-Principal, Rajkumar College, Rajkumar	900 0 1	900 0 0	From Rajkumar College Fund. (C)
51	Mirza Hairat	None.	None	None	7 6 10	Professor of Persian, Elphinstone College	475 0 0	475 0 0	
52	J. Oliver	None.	None	Hindustani, Marathi, and Bhil.	5 2 0	Acting Vice-Principal, Elphinstone High School Allowance	300 0 0 100 0 0	400 0 0	
53	Vithal Narayan Pathak	M.A.	Bombay	None	12 9 5	Acting Head Master, High School, Surat	400 0 0	400 0 0	
54	T. H. Parlin, C.S.	None.	Oxford	Hindustani and Marathi.	2 2 12	Educational Inspector, 2nd .. .. Travelling allowance .. Tentage allowance ..	750 0 0 150 0 0 11 1 9	911 1 9	Also Joint-Secretary to Acting Assistant Commissioner in Sind.

39	Balwant Bhikaji Wakharkar.	B.A.	Bombay ..	None ..	13 3 0	Head Master, Rajkumar High School, Kolhapur	250 0 0	250 0 0		Paid from Kolhapur State.
40	R. H. Hodgwert .	None.	None ..	None. Acquainted with Kanarese, Tamil and Mahratti.	18 1 0	Head Master, Sirdars' High School, Belgaum	300 0 0	300 0 0		
41	Mahadeo Vishnoo Kate.	B.A.	Bombay ..	Sanskrit .	10 4 0	Acting Head Master, High School, Dharwar	250 0 0	150 0 0		
42	Govind Wittal Kat kate.	B.A.	Cambridge	None ..	1 5 0	Superior on the Native Press, and Registrar of Native Publications ..	450 0 0	300 0 0		
43	Hari Shivji Mahajanram Rajpuria.	None.	None ..	None ..	24 5 0	Principal, Training College, Ahmedabad .. .. Gujarati Translator, Educational Department ..	240 0 0 150 0 0	390 0 0		
44	Jamsetji Nowroji Chowdri.	M.A.	Bombay ..	None ..	12 1 28	Head Master, High School, Bhavnagar	275 0 0	325 0 0		From Kathiawar Educational Fund.
45	Hari Shivb Sankaraina Shastri Jokhar.	None.	None .	None .	27 5 0	Marathi Translator, Education Department ..	300 0 0	200 0 0		
	Dadoo Hanumanth Jamsandekar.	None.	None .	None ..	4 4 0	Assistant Professor of Oriental Languages, Deccan College	200 0 0	200 0 0		

B.—GENERAL

No.	Name.	Age.	Date of Birth.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7

CLASS I.—Rs. 150 to

1	Rao Saheb Jairam Vishnu Bapat.	45	Pandit	Baroda (Rel. engish)	Elphinstone Col. Bombay	Marathi
2	Rao Saheb Gopalji Mulbari Desai.	42	Brahmin	Surat	Surat High School	Gujarati
3	Dhanjisha Kurbhasha Mehta.	41	Parsi	Surat	Elphinstone Col. Bombay	Gujarati
4	Kashava Bapuji Dal	35	Brahmin	Ankleshwar	Elphinstone Col. Bombay	Marathi
5	Rao Saheb Shivram V. Patwardhan	39	Brahmin	Raj Pipla	Elphinstone Col. Bombay	Marathi
6	Rao Saheb Ahmad Tribovan Jan Thakkar	32	Hindu	Karvalee	Elphinstone Col. Bombay	Hindi
7	Rev. W. E. Blackett	50	Christian	Surat	Church	English
8	H. W. Lewis	32	Christian	Surat	Free English School of Arts	English
9	John Dorsey	30	Christian	Bombay	Elphinstone Institution	Portuguese
10	Gopal Balaji Hirpurkar	41	Brahmin	Poona	Poona Normal School	Marathi
11	Purshottamdas Kalidas Jay Jaya	31	Brahmin	Surat	Surat High School	Gujarati
12	Rao Saheb Ganesh Dhondo Thatte.	47	Brahmin	Ratnagiri	Ratnagiri School	Marathi
13	Balaji Bapuji Sane	49	Brahmin	Pitlghar	Elphinstone Col. Bombay	Marathi
14	Bhikji Pirojji Talati	40	Parsi	Surat	Elphinstone Col. Bombay	Gujarati
15	Rao Saheb Bapu Vishnu Devarkalam	36	Vania	Dwarka	Alexandra High School	Gujarati

DIRECTORY.

Other languages known.	University Standing, or Training College Certificate.	Period of Service in the present grade.	Present Appointment.	Monthly Salary.	Remarks.
4	5	10	11	12	13

Rs. 300, inclusive.

		Y. m. d.		Rs. a. p.	
English and Gujarati	None	27 2 14	Director, Government Central Book Depôt.	600 0 0	Nearly five years of this service was spent in the Bahawalpur Sadiqgarh High School.
English, Marathi, and a little of Sanskrit.	None	24 0 0	Deputy Educational Inspector, Kathiawar sub-division.	600 0 0	Head Pandit, Sir Gokuldas Tejpar Local Fund; Pandit in all about 20 years' service.
English, Urdu, and a little of Sanskrit.	Matriculated 1880.	18 5 2	Head Master, High School, Kathiawar, Rajkot.	500 0 0	From Educational Inspection Fund.
English, Sanskrit, Hindustani, and a little of Latin, Sanskrit and Persian.	B.A., 1885	14 7 13	Head Master, High School, Hyderabad.	500 0 0	
English and Latin.	B.A., 1887	12 9 12	Principal, Town Training College, Dehra Ismail Khan.	500 0 0	
English, Hindustani, and Persian.	B.A., 1887	11 6 4	Deputy Educational Inspector, Karachee.	500 0 0	
Marathi, a little Hindustani, Gujarati, French, and Latin.	None	9 0 0	Lady Superintendent, Female Normal School, Poona.	500 0 0	
Hindustani per locality.	None	9 7 0	Superintendent, School of Industry, Dhárwár.	500 0 0	Promoted several times in 1891 (5th of this month), Dhárwár.
English	None	24 8 0	Head Assistant Director of Public Instruction, and Accountant, Hyderabad Circle.	750 0 0	Is 49 from Dehra Dun.
English, Hindustani (colloquial.)	Matriculated 1881.	14 1 12	Acting Head Master, Deolali High School. Formerly Head Master, Ahmednagar High School.	500 0 0	
English	None	28 0 0	Head Master, High School, Baroda.	500 0 0	
English, and Native	None	24 0 0	Superintendent of Musalmán Schools in the Mudhol State.	500 0 0	Paid from Mudhol State.
English	B.A., 1880; L.C.E., 1879.	18 0 12	Acting Assistant Professor, Civil Engineering College.	500 0 0	
English, and Latin.	B.A., 1889	6 5 12	Head Master, Sanyasi's High School, Karachee.	500 0 0	
English, and little of Sanskrit and Hindustani.	Matriculated 1880	13 5 11	Educational Inspector, Baroda State.	525 4 4	From Baroda State.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
16	Tapidas Dyavan Mehta ..	31	Vania ..	Surat ..	Elphinstone Col lege.	Gujarati ..
17	Narayan Vinayak Sathe ..	39	Brahmin ..	Poona ..	Deccan College..	Marathi ..
18	Chandrasanya Baslingappa Bharamkar.	49	Lingayat ..	Dharwar ..	Poona and Civil Engineering College.	Kanarese ..
19	Bhashyam Vishwa Balkrishna Bhide.	42	Brahmin ..	Chard ..	Elphinstone and Poona Colleges	Marathi ..
20	Chevvirayal Chandramuki Chandrashi.	37	Hindu ..	Bhirth ..	Elphinstone Col lege.	Sindhi ..
21	Sadik Ali Mirza	21	Mohamedan ..	Hyderabad ..	Elphinstone Col lege.	Persian and Sindhi ..
22	Sheh Sheh Mohamed Isaakoobas Fevejee.	21	Vania	Broach ..	Elphinstone Col lege.	Gujarati ..
23	Pranvanyan Mayashankar Bhatt.	61	Brahmin ..	Surat ..	Surat High School.	Gujarati ..
24	Dev Sheh Bal Pandhrai Pandit.	43	Brahmin ..	Satara ..	Poona and Civil Engineering College.	Marathi ..
25	Vachat Bange Kelli	31	Brahmin ..	Satara ..	Poona Normal School.	Kanarese ..
26	Gopal Balwant Nene	42	Brahmin ..	Poona	Deccan College.	Marathi ..
27	Robert Reigal	42	Christian	Great Ryrnalph, Norfolk	Magdalen Col lege.	English ..
28	Manikji Pestonji Kuka ..	34	Parsi ..	Bombay ..	Elphinstone High School	Gujarati ..
29	Bhikoosan Bapuji Pranjpe ..	36	Brahmin ..	Karad	Deccan College.	Marathi ..
30	Harchhil Gouldasdas Gandasra.	21	Vania ..	Broach	Elphinstone Col lege.	Gujarati ..
31	Damodhar Balkaji Jatar ..	28	Brahmin ..	Wai	Deccan College.	Marathi ..
32	Dayabhai Motiram Jagirdar	27	Hindu	Surat	Elphinstone Col lege.	Gujarati ..
33	R. V. A. Pendhyanna ..	30	Parbhu ..	Bombay ..	Civil Engineer ing College.	Marathi ..
34	Ashvin Shahidas Ajmukar	22	Gujrat Brahmin	Kaira	Deccan College.	Marathi
35	Jamshji Edulji Ghiai	20	Parsi ..	Bombay ..	Elphinstone Col lege.	Gujarati

Other Language known.	University standing, or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English, Sanskrit and a little of Marathi.	M.A., 1879..	0 7 13	Head Master, Baroda High School.	227 4 4	From Baroda State.
English, Sanskrit, and Gujarathi.	B.A., 1883..	10 11 6	Acting Head Master, High School, Ratnagiri.	220 0 0	
English and Marathi.	None ..	22 10 0	Deputy Educational Inspector, Dharwar.	210 0 0	Rs. 10 from the Miraj State.
English and Sanskrit.	Matriculated 1868.	16 0 21	Deputy Educational Inspector, Poona Sub-Division.	210 0 0	Rs. 10 paid from Miraj State.
English, Persian and Hindustani.	None ..	11 1 23	Shastri Translator, Educational Department.	210 0 0	Also as Extra Assistant Collector, Ryderabad.
English, Hindustani, Arabic and a little of Latin.	B.A., 1872..	6 0 0	Head Master, High School, Shikarpur, and Acting Shastri Translator, Educational Department.	210 0 0	
English, Marathi, and a little of Hindustani and Sanskrit.	None ..	20 5 0	Deputy Educational Inspector, Surat Sub-Division.	200 0 0	
English and Marathi.	None ..	19 7 23	Head Master, 1st Grade Anglo-Vernacular School, Chitrapur, and Superintendent of Schools, Chitrapur State.	200 0 0	From Kolhapur Educational Fund.
English and Sanskrit.	None ..	19 5 20	Deputy Educational Inspector, Kolhapur State.	200 0 0	Rs. 171 from the Kolhapur and Rs. 25 from the Miraj State.
English, Marathi, and Sanskrit.	None ..	20 3 0	Kharera Translator, Educational Department.	200 0 0	
English and Sanskrit.	Matriculated 1868.	19 10 0	Deputy Educational Inspector, Satara Sub-division.	190 0 0	Rs. 10 from Jath State.
Hindustani and Marathi.	None ..	23 10 4	Superintendent, Mechanical Branch, Poona Civil Engineering College.	200 0 0	
English, Marathi, and Hindustani.	None ..	19 11 27	Head Master, English School, Aden.	200 0 0	
English and Sanskrit.	B.A., 1880 ..	12 0 5	Head Master, Sirur High School.	200 0 0	On leave.
English and Latin.	F.E.A., 1880.	11 7 22	Tutor to His Highness the Maharaja of Idar.	200 0 0	Paid from Idar State.
English and a little of Latin and Sanskrit.	B.A., 1869..	9 10 24	Head Master, Satara High School.	200 0 0	
English and Latin.	B.A., 1869..	9 9 [illegible]	Head Master, Junagad High School.	200 0 0	From Kathiawar Educational Fund.
English	None ..	8 7 14	Drawing Master, Poona Civil Engineering College.	200 0 0	
English and Sanskrit.	Bch., 1879 ..	5 5 0	Tutor to His Highness Maharaja of K.-Rajpur.	200 0 0	Paid from Kolhapur State.
English and a little of	Matric.A., 1877.	4 7 21	Head Master, Nadiad High School.	200 0 0	

S...	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular
1	2	3	4	5	6	7
36	Mr. L. R. Gellet	22	Christian ...	Bombay ...	Edinburgh ...	English ...
37	Rao Saheb Vinayak Krishna Gore.	41	Brahmin ...	Poona ...	Deccan College	Marathi ...
38	Rao Saheb Mathrau Bajaraw	40	Vania ...	Surat ...	Elphinstone College	Gujarati ...
39	Rao Saheb Sadashiv Chintaman Gokhale.	30	Great Brahmin	Ahmednagar	Elphinstone College	Marathi ...
40	F. M. Khajiani.	22	Khoja ...	Surat ...	Elphinstone College	Gujarati ...
41	Rao Bhagwant Rastia ...	38	Brahmin ...	Satara ...	Elphinstone College	Marathi ...
42	Nanabhai Lavcram Pandya ...	42	Brahmin ...	Surat ...	Surat High School	Gujarati ...
43	Rao Saheb Jamshedram Jaiwantram Thara.	40	Brahmin ...	Surat ...	Surat High School	Gujarati ...
44	Manikshaw Dorabji Lawyer.	40	Parsi ...	Surat ...	Elphinstone College	Gujarati ...
45	Rao Saheb Manidharprasad Tejdyaprasad Desai.	40	Brahmin ...	Surat ...	Surat High School	Gujarati ...
46	Rao Saheb Pitlaba Amrabrao Ramchandrani.	47	Adadi ...	Hyderabad	Hyderabad Madrasa School	Hindi ...
47	Rao Saheb Narayan Krishna Gokhle.	45	Brahmin ...	Rajapur ...	Deccan College	Marathi ...
48	Krishnaji Ganesh Gokhle ...	41	Brahmin ...	Ahmednagar	Deccan College	Marathi ...
49	Ramakant Krishna Bhagvat ...	35	Great Brahmin	Poona ...	Poona College	Marathi ...
50	Lakshmana Vishnu Paranjpe ...	32	Brahmin ...	Poona ...	Poona Normal School	Marathi ...
51	Dinkarrao Krishna Khisti ...	40	Brahmin ...	Hatkanangle (Dharwar)	Elphinstone and Poona College	Canarese ...
52	Rao Saheb Ramchandra Annaji Kanade.	32	Brahmin ...	Belgaum ...	Belgaum High School	Canarese ...
53	Khan Saheb Gulam Ali Abdulla.	34	Mahomedan	Kumarkan...	Elphinstone College	Persian ...

Other Languages known.	Period of Service in the Department.	Date of Passing or Training College Certificate	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
French and German.	None ..	4 5 0	Lady Superintendent, Female Training School, Ahmedabad.	200 0 0	
English	Matriculated 1882.	10 11 15	Deputy Educational Inspector, Khandesh.	175 0 0	
English and a little of Urdu.	None ..	12 9 20	Deputy Educational Inspector, Ahmedabad Sub-division.	175 0 0	
English, Sanskrit, and (colloquial) Hindustani.	B.A., 1883.	7 5 25	Deputy Educational Inspector, Thána Sub-division.	175 0 0	
English, Latin, Gujarati, Marathi, and a little of Márwárí, Hindustani, and Persian.	B.A., 1879.	1 11 0	Acting Head Master, High School, Shikárpur; First Assistant, N. J. High School, Karráchee.	172 8 0	
Sanskrit and a little of Persian.	B.A.	15 ..	Acting Head Master, Ahmednagar High School.	170 0 0	
English, Marathi, and a little of Sanskrit.	None ..	25 1 0	Inspector, Training College, Rajkot.	166 0 0	From the Kathiawár Education Fund.
English and a little of Persian.	None ..	24 0 0	Deputy Educational Inspector, Sukkur and Khairpur Sub-division.	150 0 0	From Sukkur and Khairpur Funds.
English	None ..	27 4 0	Head Master, Fort Branch School, Bombay.	150 0 0	
English ..	Matriculated 1883	20 4 19	Deputy Educational Inspector, Kaira Sub-division.	150 0 0	
English, Persian, and Hindustani.	None ..	15 2 20	Deputy Educational Inspector, Hyderabad.	150 0 0	On furlough.
English ..	Matriculated 1884.	19 2 11	Deputy Educational Inspector, Ahmednagar Sub-division.	50 0 0	
English, Sanskrit, and Hindustani.	Matriculated 1883.	16 10 0	Tutor to the Chief of Kágal.	150 0 0	From the Kágal State.
English, Sanskrit, Hindustani, and Sindhi.	Matriculated 1880.	15 0 14	Acting First Assistant Master, Karrachee High School.	150 0 0	
English, Hindustani, Sindhi, Gujarati, and Sanskrit.	Matriculated 1880.	13 11 0	Acting First Assistant, High School, Hyderabad.	150 0 0	Performing duties of Assistant, Mr. R. K. Bhende.
English and Marathi.	None ..	23 7 9	Principal, Training College, Dhárwár.	150 0 0	
English, Marathi, and a little of Hindustani.	Matriculated 1880.	11 8 20	Deputy Educational Inspector, Kolaba.	150 0 0	
English, Hindustani, Persian, and Kutch.	Matriculated 1883.	11 4 0	Acting Deputy Educational Inspector, Hyderabad.	150 0 0	Head Master, Normal School, Hyderabad.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
54	Syed Abdul Futte Mulvi	60	Mahomedan	Nasik	Surat and Bombay	Hindustani
55	Balaji Prabhakar Moisk	25	Brahmin	Trimbak (Malwa)	Deccan College	Marathi
56	Ghelabhai Mankhd Talvala	24	Vania	Surat	Elphinstone College	Gujarati
57	Nowrozjee C. Forbori	24	Vania	Broach	Elphinstone College	Gujarati
58	Anna Moreshwar Kunte	24	Brahmin	Mahuli	Elphinstone College and Grant Medical College	Marathi
59	Rao Sahib Ganpat Vaman Tasgaonkar	20	Brahmin	Belgaum	Deccan College	Marathi
60	Prabhakar Gangadhar Bhide	21	Brahmin	Malvan (Ratnagiri)	Poona Civil Engineering College	Marathi
61	Dalmjeun Vishwenath Vyas	25	Brahmin	Surat	Elphinstone College	Gujarati
62	Abdulla Mahomed Bagasi	26	Kojha	Bombay	Elphinstone College	Gujarati
63	T. Coats	40	Christian	Mangalore	Basel College	Kanarese
64	Meherwanji S. Wadia	26	Parsi	Poona	Elphinstone College	Gujarati
65	Hastings M. Page	26	Christian	Bellgaum	Poona Civil Engineering College	English
66	Kaikhushroo Kavasji Kapadia	24	Parsi	Surat	Elphinstone College	Gujarati

CLASS II.—Rs. 100

67	Dattrishna Sakharam Moje	49	Brahmin	Poona	Deccan and Civil Engineering College	Marathi
68	Pandurangji Raghoba Parvekar	34	Vaishya	Karrachee	Deccan College	Marathi
69	Govind Khshar Sahdey	30	Brahmin	Poona	Elphinstone College	Marathi
70	Pahanji Adarji Khory	37	Parsi	Bombay	Elphinstone College	Gujarati
71	Jamsetji Ojarsetji Dubash	34	Parsi	Bombay	Elphinstone College	Gujarati

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English, Arabic, Persian, Marathi, and Gujarati.	None	11 7 8	Persian Teacher in Elphinstone High School.	150 0 0	
English, Sanskrit and Kanarese (colloquial).	F.E.A., 1868	10 2 14	Tutor to the Chief of Miraj.	150 0 0	Paid from Miraj State.
English, Sanskrit and a little of Marathi.	B.A., 1869..	9 0 27	First Assistant Master, Kathiawar High School, Rajkot.	150 0 0	From Kathiawar Educational Fund, On leave.
English and a little of Marathi.	F.E.A., 1868	9 9 8	First Assistant Master, Rajkumar College, Rajkot.	150 0 0	Paid from Rajkumar College Fund.
Sanskrit, Gujarati, and Hindustani (colloquial).	B. A., 1875 M.D.	8 9 6	Demonstrator of Anatomy, Grant Medical College.	146 4 0	Also draws allowance from other Departments.
English, Sanskrit and Kanarese.	B.A., 1872..	7 4 5	Deputy Educational Inspector, Ratnagiri Sub-division.	150 0 0	
English ..	L.C.E., 1873.	4 10 0	Head Master, Engineering School, Hyderabad.	150 0 0	
English and Sanskrit.	B.A., 1876..	4 0 6	Head Master, Navlangar ..	150 0 0	Paid from Kathiawar Educational Fund.
English and Latin.	B.A., 1871..	3 7 27	First Assistant Master, High School, Ahmedabad.	150 0 0	
English and German.	None ..	2 3 0	Head Master, English School, Karwar.	150 0 0	
English and Latin.	B.A.. ..	2 11 3	First Assistant Master, Surat High School.	150 0 0	
Marathi ..	F.C.E., 1872.	1 2 27	Assistant Professor of Chemistry and Geology.	150 0 0	
English and Latin.	M.A., 1879..	0 6 23	Sub. professor, First Assistant Master, Kathiawar High School.	150 0 0	Paid from Kathiawar Educational Fund.

and below Rs. 150.

English, Sanskrit and Kanarese.	None ..	15 4 0	Deputy Educational Inspector, Sangli.	140 0 0	Paid from the Sangli State. On special duty in Kanara.
English, Sanskrit, Latin, and Gujarati.	F.E.A., 1863	11 4 21	Acting Head Master, Ninth High School. Assistant Master, Elphinstone High School.	140 0 0	
English and Sanskrit.	Matriculated	15 11 20	Head Master, Jagannath Sankersett 1st Grade Anglo-Vernacular School, Bombay.	130 0 0	
English ..	F.E.A., 1864.	13 7 19	Acting First, Permanent Second Assistant Master (Gujarati Side), Elphinstone High School.	130 0 0	
English and Latin.	B. A., 1867	11 3 1	Head Master, Gokuldas Tejpal 1st Grade Anglo-Vernacular School, Bombay.	120 0 0	

No.	Name	Age	Caste or Religion	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
77	Kavasji Nasarwanji Gantra tor	29	Parsi	Broach	Elphinstone College.	Gujarâti ..
79	Ramchandra Ganesh Mulk ..	32	Good Brahmin	Bassein ..	Elphinstone Institution.	Marâthi ..
74	Khan Sahab Haji Ahamed Haji Mahomed Sale Mahadum.	37	Mahomedan ..	Ankari ..	Normal School, Karachee.	Sindhi ..
75	Rao Saheb Gangatram Govindshankar Shastri.	36	Brahmin ..	Surat ..	Surat High School.	Gujarâti ..
76	Chaturbhuj Lakshmi Das ..	31	Brahmin ..	Tatta	Elphinstone College.	Sindhi ..
77	Dayaram Nirmal Wasvani	32	Bhoti Lohana	Hyderabad ..	Elphinstone and Deccan College.	Sindhi ..
78	Rao Saheb Gopal Moreshwar Sathe.	32	Brahmin ..	Poona	Elphinstone College.	Marâthi ..
79	Mahomed Abdullah	30	Mahomedan ..	Calcutta	Chamtia Madrisa	Hindustani.
80	Ganesh Janardan Agasha ..	27	Brahmin ..	Alandi	Deccan College	Marâthi ..
81	Rao Saheb Bavaji Balaji Karandikar.	24	Brahmin ..	Bangal (Dhârwar.)	Deccan College.	Marâthi ..
82	C. W. Dudley	25	Christian ..	Ellichpur ..	Poona Civil Engineering College.	English ..
83	Narayan Balal Limaye ..	42	Brahmin ..	Malgund (Ratnâgiri).	Elphinstone College.	Marâthi ..
84	Vibhovan Dalji Gadre	40	Brahmin ..	Junnar	Training College, Poona.	Marâthi ..
85	Trimbak Narayan Kirtane ..	27	Brahmin ..	Rajapur (Ratnâgiri).	Elphinstone College.	Marâthi ..
86	Dowlatram Mariramshankar	36	Brahmin ..	Ahmedabad ..	Ahmedabad High School.	Gujarâti ..
87	Kanjalal Ghirdharlal Dave ..	25	Brahmin ..	Ahmedabad ..	Ahmedabad High School.	Gujarâti ..
88	Janardhan Balaji Modak ..	22	Brahmin ..	Dandavali ..	Deccan College.	Marâthi ..
89	Baliwant Ramchandra Sahasrabudhe.	21	Brahmin ..	Poona	Deccan College.	Marâthi ..
90	Keshav Waman Kirtane ..	29	Brahmin ..	Poona	Deccan College.	Marâthi ..
	Hirachi Pestonji Patel ..	32	Parsi	Bombay ..	Elphinstone College.	Gujarâti ..

Other Languages known.	University Standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Persian.	B.A., 1877	0 1 9	Acting Second Assistant Master, Hyderabad High School.	150 0 0	Personal interest, Mr. Lakshman Vishnu.
English, Hindustani, Gujarati and Sindhi.	None ..	21 1 9	Head Master, English School, Shikarpur.	150 0 0	
Arabic, Persian, and Urdu.	None ..	22 11 9	Deputy Educational Inspector, Shikarpur.	125 0 0	
English, Hindustani, and a little of Sanskrit and Persian.	None ..	14 10 24	Deputy Educational Inspector, Broach Sub-division.	125 0 0	
English and a little of Sanskrit.	Matriculated 1866 ..	11 9 17	Acting Second Assistant, N. J. High School, Karachee.	125 0 0	
English, Hindustani, a little of Persian and Sanskrit.	Matriculated 1866	10 0 10	First Assistant Master, Shikarpur High School.	125 0 0	
English and Sanskrit.	B.A., 1873 ..	9 10 15	Deputy Educational Inspector, Nasik Sub-division.	125 0 0	
English, Persian, and Arabic.	Matriculated at Calcutta University	6 0 0	Munshi at Rajkumar College.	125 0 0	From Rajkumar College Fund. On leave.
English and Sanskrit.	B. A., 1875 ..	5 9 26	[illegible] Head Master, English School, Thana.	125 0 0	
English, Kánarese, and a little of Hindustani.	B.A., 1874 ..	4 2 9	Deputy Educational Inspector, Belgaum.	125 0 0	
Marathi	F.C.E., 1875	0 11 0	Head Vernacular Teacher, Poona Civil Engineering College.	125 0 0	Acting for Mr. Soni.
English and Gujarati.	None ..	26 1 0	Vice-Principal, Poona Training College.	150 0 0	
English, Gujarati and Sanskrit.	None ..	19 2 15	Head Clerk, Oriental Government Central Book Depot, Bombay.	150 0 0	
English and Kánarese.	Matriculated 1861	16 11 0	Head Master, English School, Kaladgi.	150 0 0	
English .. .	Matriculated 1865.	16 7 1	Sub-Deputy Educational Inspector, South Prant, Kaladgi.	150 0 0	From the Rajkumar Educational Fund.
English and a little of Sanskrit.	None .	15 0 6	Sub-Deputy Educational Inspector, Gohilwad Prant, Kathiawar.	150 0 0	From the Kathiawar Educational Fund.
English, Sanskrit, and colloquial Kánarese.	B.A., 1871 ..	10 1 2	First Assistant Master, Kaladgi High School.	150 0 0	
English and Sanskrit.	B. A., 1872 ..	6 4 17	Acting First Assistant Master, Poona High School.	150 0 0	
English and Sanskrit.	B.A., 1871 ..	7 7 11	Sanskrit Teacher, Elphinstone High School.	150 0 0	
English and Latin.	B.A., 1869 ..	6 7 11	Acting second, Professor of Third Assistant (2), N. J. Elphinstone High School.	150 0 0	

No.	Names	Age.	Caste or Religion	Birth place	Where educated	Vernacular.
1	2	3	4	5	6	7
97	Khanchhod J. Desai	22	Brahmin	Bárdoli	Elphinstone College.	Gujaráti
98	Kashiram Jagu Pathak	26	Brahmin	Mahi	Elphinstone and Deccan Colleges	Kánarese
99	Kavasji J. Sanjana	21	Parsi	Kalyán	Deccan College.	Gujaráti
100	Nanabhai Ardesir Mowa	20	Parsi	Bombay	Poona Civil Engineering College.	Gujaráti
101	Balaji Narayan Joshi	21	Brahmin	Surat	Elphinstone College.	Gujaráti
102	Rao Saheb Nana Bhaskar Pandhar.	45	Brahmin	Poona	Poona Training College.	Maráthi
103	Govind Balwant Patwardhan.	27	Brahmin	Poona	Deccan College.	Maráthi
104	Raveshankar B. Dhebhái	21	Brahmin	Junágad	Elphinstone College.	Gujaráti
105	Gulam Reza Frobuleg	23	Mahomedan	Hyderabad	Elphinstone College.	Hindhi
106	Rattanman Jayanand Vakil.	47	Brahmin	Surat	Elphinstone College.	Gujaráti
107	Rao Saheb Madhavlal Harilal Desai	36	Khastri	Ahmedabad	Elphinstone College.	Maráthi
108	Sorabjee Nerbheram Munshi.	47	Brahmin	Surat	Surat High School.	Gujaráti
109	Krishnaji Pandurang Godbole	49	Brahmin	Wai (Sátára)	Poona Normal School.	Maráthi
110	Krishnaji Lakshuman Dekar.	42	Brahmin	Tarpam	Poona Training College.	Maráthi
111	Parashram Balkrishna Godbole.	45	Brahmin	Pilwai (Ratnágiri).	Deccan College.	Maráthi
112	Bowji Sadashiva Godbole	48	Brahmin	Wai	Deccan College.	Maráthi
113	Krishnaji Govindas Mehetta	34	Koleth	Surat	Surat High School.	Maráthi
114	Harjivandas Valram Sarvi	28	Kshatri	Bombay	Elphinstone College.	Hindhi
115	Narayan Krishna Gokay	32	Brahmin	Poona	Poona College	Maráthi

Other languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Latin.	B. A., 1875 ..	2 9 25	Second Assistant Master, High School, Ahmednagar.	150 0 0	
English, Sanskrit, and Marathi.	B. A., 1877 ..	1 7 12	Sub-proctor, First Assistant, Belgaum High School.	125 0 0	
English and Sanskrit.	M. A., 1878 .	0 9 21	First Assistant Master, Dhulia High School.	100 0 0	
Persian	L.C.E. ..	0 7 13	Teacher of the Fourth Class, Engineering College, Poona.	170 0 0	
English and Sanskrit.	F.E.A., 1880	0 9 28	Fifth Assistant, Sirsingpur High School.	120 0 0	Paid from Kathiawar Educational Fund.
English and a little of Sanskrit.	None ..	24 9 25	Deputy Educational Inspector, Mudgal.	150 0 0	Rs. 10 paid from Amalner funds.
English and Sanskrit.	Matriculated 1882.	15 0 18	Head Master, 1st Grade Anglo-Vernacular School, Kalyan.	110 0 0	
English and a little of Sanskrit.	Matriculated 1886.	9 4 0	Acting Hindustani Teacher, Elphinstone College.	150 0 0	Paid from the Rajkumar College Fund.
English, Hindustani, Arabic, and Persian.	Matriculated 1887.	8 5 29	Acting Head Master, Normal School, Hyderabad.	100 0 0	
English (colloquial), Marathi and Hindustani.	Matriculated 1884.	17 8 14	Acting Third, Permanent 4th Assistant Master (Gujarati Side), Elphinstone High School.	125 0 0	
English, Sanskrit, and Urdu.	B.A., 1879..	3 4 20	Deputy Educational Inspector, Kaira Eastern and Panch Mahals.	150 0 0	Rs. 54-2 Advance from Kathiawar Educational Funds, and Rs. 75 from Mehta Trust Fund.
English	None ..	22 11 3	Head Master, No. II. Branch School, Surat.	100 0 0	
English, Sanskrit, and Hindi.	None ..	24 6 13	Head Master, 1st Grade Anglo-Vernacular School, Phatanwady, Bombay.	150 0 0	
English and Sanskrit.	None ..	29 4 21	Head Master, 1st Grade Anglo-Vernacular School, Ahmednagar.	100 0 0	
English, Kanarese and Sanskrit.	None ..	23 4 15	Head Master, 1st Grade Anglo-Vernacular School, Belgaum.	100 0 0	
English and Sanskrit.	None ..	22 4 21	Secretary and Bursar, Deccan Prize Committee.	100 0 0	Paid from Dakshina Fund.
English	Matriculated 1883.	10 1 0	Sub-Deputy Educational Inspector, Shahabad Prant, Kaladgi.	100 0 0	From the Kathiawar Educational Fund.
English, Gujarati, and a little of Marathi.	Matriculated 1884.	13 1 0	Sub-proctor, Tutor to the Minor Chiefs of Mirpur Khas.	150 0 0	Paid from Cutchi Funds.
English	None ..	14 9 22	First Clerk and Accountant, Director of Public Instruction's Office.	150 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
111	Bhaskar Govinda Gokhle ..	38	Brahmin	Talekhajan (Satara)	Belgaum High School.	Marathi
112	Balwantrao Hari Sagvekar ..	37	Brahmin	Poona	Poona High School.	Marathi
113	Shripat Vaijanath Bhatkande	38	Brahmin	Shirhatti (Sangli State.)	Belgaum High School.	Marathi
114	Gaurishanu Ishwaru Vaidya.	30	Brahmin	Amod ..	Surat High School.	Gujarati
115	Chetanram Aswaral Malkani	27	Hindu (Amil)	Hyderabad	Hyderabad High School.	Sindhi
116	Waman Prabhakar Sahasrabudhe.	27	Brahmin	Poona ..	Deccan College	Marathi
117	K. M. Raghavendrarao ..	38	Saraswat Brahmin.	Mangalore	Mangalore School.	Kanarese
118	Ratanshankar T. Dave ..	25	Brahmin	Surat ..	Elphinstone College.	Gujarati
119	Hormajji Sorabji Settna ..	29	Parsi ..	Bombay ..	Elphinstone High School and College	Gujarati
120	Balkrishna Narayan Paranjpe.	26	Brahmin	Karad ..	Poona College	Marathi
121	Tarachand Bhavanishankar Vinayak Bhagwan.	41	Brahmin	Poona ..	Poona High School & Presidency Assembly's College, Bombay.	Marathi
122	Shivaram Ramchandra Savarti.	32	Brahmin	Belgaum	Belgaum High School.	Kanarese
123	Vijaysinh Jairamdas Mansukhani.	27	Hindu Amil	Hyderabad	Hyderabad High School.	Sindhi
124	Narhar Parashram Tilak ..	25	Brahmin	Poona ..	Deccan College	Marathi
125	Gajanand Vitoba Vaidya ..	29	Gaud Brahmin	Bombay ..	Elphinstone College.	Marathi
126	Sangappa Mallappa Ankle ..	29	Jain ..	Belgaum	Belgaum High School.	Kanarese
127	Sewaraj Dalsukhji Mehta ..	29	Parsi ..	Bombay ..	Elphinstone High School.	Gujarati
128	Manilalbhai Kasturchand Vimarsha.	31	Vania ..	Surat ..	Elphinstone College.	Gujarati
129	Balkrishna Amrutlal Vaidya.	21	Brahmin	Junagad	Elphinstone College.	Gujarati
130	Gheldharam Dwarkaram Joshi.	30	Brahmin	Surat ..	Elphinstone College.	Gujarati
131	Laxman Shivram Kelatkar.	25	Brahmin	Poona ..	Deccan College.	Marathi
132	Jhaverl Narayandas Dalal ..	28	Vania ..	Surat ..	Surat High School.	Gujarati
133	Dalpatram Vitaldas Dalal ..	29	Vania ..	Surat ..	Elphinstone College.	Gujarati

Other Languages known.	University standing or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Kanarese.	Matriculated 1887.	14 5 9	Sub-registrar, First Assistant, Dharwar High School.	100 0 0	
English	None ..	14 4 13	Clerk, Elphinstone College and Government Law School.	100 0 0	
English and Kanarese.	Matriculated 1884.	14 2 18	Head Master, English School, Hubli.	100 0 0	
English	Matriculated 1892.	14 2 6	Sub-Deputy Educational Inspector, Assistant Collector	100 0 0	From the Educational Field. On leave without pay.
English, Persian and Hindustani	None ..	14 1 6	Head Master, Anglo-Vernacular School, Sholapur.	100 0 0	
English and Kanarese.	Matriculated 1889.	13 6 0	Head Master, Anglo-Vernacular School, Shahapur	100 0 0	From Shahapur State. On furlough.
English and Kanarese	Matriculated at Madras, 1885.	13 1 1	First Assistant, English School, Karwar.	100 0 0	
English and a little of Latin.	F.E.A., 1881	12 4 14	Head Master, Branch School, No. 1, Ahmedabad.	100 0 0	
English	Matriculated 1881.	12 4 2	Head Master, 1st Grade Anglo-Vernacular School, Camp Poona.	100 0 0	
English	Matriculated 1885.	12 2 5	Assistant Master, Ellichpur High School.	100 0 0	On leave.
English, Kanarese, Latin, and a little of Sanskrit.	Matriculated 1886.	11 9 0	Deputy Educational Inspector, Satara.	100 0 0	
English and Marathi.	Matriculated 1886.	11 8 0	Vice-Principal, Training College, Dharwar.	100 0 0	
English, Persian and Hindustani.	Matriculated 1887.	11 7 29	Tutor to the Mirs of Khyrpur Khas. Acting Head Master, Anglo-Vernacular School, Sukkur.	100 0 0	
English and Sanskrit.	F.E.A., 1887	11 1 12	First Assistant Master, Nasik High School.	100 0 0	
English	None ..	10 7 13	English Accountant, Curator Government Central Book Depôt.	100 0 0	
English and Marathi	Matriculated 1882.	10 6 0	Head Master, English School, Kamptee.	107 0 0	
English, Marathi, Kanarese and Hindustani (colloquial).	None ..	9 6 7	First Assistant Master, Ahmednagar English School.	100 0 0	
English and Latin.	F.E.A., 1888.	9 1 25	Head Master, 1st Grade Anglo-Vernacular School, Sholapur.	100 0 0	
English and Sanskrit.	Matriculated 1889.	8 9 0	Professor, First Assistant Master, High School, Ahmedabad.	100 0 0	Paid from Educational Fund. One year's leave without pay.
English and Sanskrit.	F.E.A., 1889.	8 5 0	First Assistant Master, Broach High School.	100 0 0	
English and Sanskrit.	B.A., 1871..	8 1 25	First Assistant Master, Rajkumar High School, Kolhapur.	100 0 0	Paid from Kolhapur State.
English and Latin.	B.A., 1872.	8 0 0	Second Assistant Master, Surat High School.	100 0 0	
English and Sanskrit	F.E.A., 1889	7 8 29	First Assistant Master, Nasik High School.	100 0 0	

No.	Name.	Age	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
134	Vallabhram Vajeram Mehta.	29	Brahmin	Surat	Surat High School and Elphinstone College.	Gujarati
135	Gopal Atmaram Sant	26	Brahmin	Poona	Deccan College.	Marathi
136	Narayan Balkrishna Godbole	24	Brahmin	Chaul	Elphinstone College.	Marathi
137	Ambaram Dalichand Bhatia	27	Vania	Ahmedabad	Rajkot English School	Gujarati
138	Kashinath Narayan Sane	25	Brahmin	Dahanu	Deccan College	Marathi
139	Sakharam Ramchandra Elekkar.	27	Brahmin	Kolhapur	Deccan College	Marathi
140	Miss Rosa Morris	22	Christian	London	London	English.
141	Narayan Raghunath	19	Parbhu	Bombay	Elphinstone College.	Marathi
142	Sorjorji A. Enti	25	Parsi	Bulsar	Elphinstone College.	Gujarati
143	Gopal Tyankatesh Pannalikar.	20	Brahmin	Goa	Elphinstone College	Marathi
144	Miss Firoj Sorabji	21	Native Christian.	Nasik	In India, and 2 years in Wantage Training School.	Gujarati
145	Miss Mary Sorabji	19	Native Christian.	Nasik	In India and 2 years in Wantage Training School.	Gujarati
146	Krishnashankar Himshankar Pandya.	24	Brahmin	Nadiad	Elphinstone College.	Gujarati
147	Trimbak Gangadhar Nene	27	Brahmin	Satara	Elphinstone College.	Marathi

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148	Kashinath Ganesh Kelkar	28	Brahmin	Poona	Deccan College	Marathi
149	Pestonji Karanji Sanjana	26	Parsi	Bombay	Elphinstone College.	Gujarati
150	Balnarayan Govindnarayan Bhatt.	25	Brahmin	Surat	Elphinstone College.	Gujarati

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointments.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Kanarese.		8 4 10	Assistant Deputy Educational Inspector, Southern Maratha Sub-division.	100 0 0	On leave.
English and Sanskrit.	B.A., 1870	4 4 0	First Assistant Master, English School, Sholápur.	100 0 0	
English and Sanskrit.	B.A., 1874	2 4 22	First Assistant Master, Ahmednagar High School.	100 0 0	
English	None.	7 3 0	Head Master, Anglo-Vernacular School, Mirji.	100 0 0	Kárbhárí Educational Fund.
English and Sanskrit.	B.A., 1872	6 1 23	Second Assistant Master, Poona High School.	100 0 0	
English, Latin and Sanskrit.	B.A., 1873	5 4 20	Sub. *pro tem.* First Assistant, High School, Satára.	100 0 0	Acting for Mr. L. R. Kelkar, B.A., temporarily transferred to Rajaram High School, Kolhapur.
Marathi and Hindi French.	None.	4 2 9	Assistant Mistress, Female Normal School, Poona.	100 0 0	
Gujarati, Hindustani (colloquial).	None	3 6 6	Head Clerk and Librarian, Grant Medical College.	100 0 0	
English, Latin, and Persian.	B.A.	2 9 0	Sub. *pro tem.* First Assistant Master, Bhavnagar High School.	100 0 0	From the Kathiawar Educational Fund.
Latin, English, and Gujarati.	F.E.A.	1 11 14	Head Master, Shivaji-vilas 1st (Urdu) Anglo-Vernacular School.	100 0 0	Paid from Sayanvilasi State.
English, French, a little Sanskrit and Marathi.	None	9 3 23	First Assistant, Female Training College, Ahmedabad.	100 0 0	
English, French, a little Sanskrit and Marathi.	None	9 7 23	Second Assistant, Female Training College, Ahmedabad.	100 0 0	
English and Sanskrit.	B.A., 1874	5 3 17	Sub. *pro tem.* First Assistant, Junágad High School.	100 0 0	Kárbhárí Educational Fund.
English and Sanskrit.	B.A., 1872	6 3 0	Sub. *pro tem.* Assistant Master, Kolhapur High School.	100 0 0	Paid from Kolhapur State.

and below Rs. 100.

English and Sanskrit.	B.A., 1874	5 6 0	Sub. *pro tem.* Third Assistant Master (Marathi Side), Kathiawar High School.	85 0 0
English	Matriculated 1865.	15 7 15	Fifth Assistant Master (U.S.), Kathiawar High School.	80 0 0
English	Matriculated 1862.	12 1 28	Head Master, Branch School, No. II., Ahmedabad.	80 0 0

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
183	Krishna Vinayak Dhairyavan	37	Parbhu	Bombay	Elphinstone College	Marathi
184	Bhimacharya Zalakikar	45	Brahmin	Zalaki, in Carnatic	Nargund and Poona Schools	Kanarese
185	Jagjivandas Bhavanishankar Kapadia	26	Kshatria	Surat	Elphinstone College	Gujarati
186	Dampahar Govind Gharpure	28	Brahmin	Miraj	Deccan College	Marathi
187	Ganesh Gopal Pandit	28	Brahmin	Kolhapur	Elphinstone College	Marathi
188	Raja Narayan Nahar	28	Saraswat	Bondivde	Elphinstone College	Marathi
189	Bakkidas Jeechandas Kothari	44	Hindu	Ahmedabad	Ahmedabad High School	Gujarati
190	Rustomji Ardisher Daruvala	27	Parsi	Bombay	Elphinstone College	Gujarati
191	Kundandas Akhairai Asarpota	31	Hindu, Amil	Khairpur	Karachee Mission School	Sindhi
192	Harikrishna L. Dave	30	Brahmin	Surat	Elphinstone College	Gujarati
193	Sadashiva Balkrishna Bhate	29	Brahmin	Bengal	Elphinstone College	Marathi
194	Motilal Mahasukhlal Jhaveri	28	Vania	Broach	Elphinstone College	Gujarati
195	Dhanukram Narsidas Parekh	42	Vania	Nadiad	Elphinstone College	Gujarati
196	Udharam Bhojraj Bhojkhan	31	Amil	Kolari	Sukkur Anglo-Vernacular school	Sindhi
197	Fakirbhai Tulsidas Master	43	Vania	Surat	Surat High School	Gujarati
198	Shankarrao Mangesh Dhume	45	Konet Brahmin	Bombay	Elphinstone High School	Marathi
199	Krishnaji Pandharam Gadgil	30	Brahmin	Wai	Deccan College	Marathi
200	Tarachand Sharbhiram	29	Amil	Hyderabad, Sind	Elphinstone College	Sindhi
201	Sheik Hayat	35	Mahomedan	Poona	Free General Assembly's Institution, Bombay	Hindustani
202	Pandurji Dossaji Karani	33	Parsi	Bombay	Elphinstone High School	Gujarati
203	Mirza Ismail	28	Mahomedan	Shiraz	Shiraz College, Persian Persia	
204	Krishnarao Mahadev Samarth	28	Kayasth	Madras	Elphinstone College	Marathi

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Latin.	F.E.A., 1854	12 9 26	Fourth Assistant Master (Marathi side), Elphinstone High School.	80 0 0	
Sanskrit, Marathi, and Gujarati.	None	11 8 10	Sanskrit Teacher, Elphinstone College, Bombay.	80 0 0	
English and Sanskrit.	F.E.A., 1870	6 4 0	Third Assistant Master, Surat High School.	60 0 0	
English and Sanskrit.	B.A., 1872	6 9 24	Third Assistant Master, High School, Poona.	90 0 0	Transferred to the Judicial Department.
English and Sanskrit.	B.A., 1879	4 10 11	Sub. *pro tem.* Third Assistant, Ahmedabad High school.	90 0 0	
English and Sanskrit.	B.A., 1873	1 4 0	Sub. *pro tem.* Third Assistant, Poona High School.	90 0 0	
English and Gujrati.	None ..	24 4 20	Head Master, Anglo-Vernacular School, Umarkot.	85 0 0	Paid from Local Fund.
English ..	Matriculated 1864.	12 0 0	Sixth Assistant Master (O.S.) Elphinstone High School.	82 0 0	
English, Persian, and Urdu	Matriculated 1869.	6 5 29	Head Master, Anglo-Vernacular School, Tatta.	65 0 0	Paid from Local Funds.
English, Sanskrit, and a little of Marathi.	Matriculated 1867.	8 2 19	Acting Assistant Master and Accountant, Elphinstone College.	85 0 0	Paid from Rajpurmar College Fund.
English, Kanarese, and Sanskrit.	F.E.A., 1873	6 0 25	Second Assistant Master, 1st Grade Anglo-Vernacular School, Karwar.	80 0 0	
Sanskrit	Matriculated	5 9 24	Second Assistant, Dharwar High School.	85 0 0	From the Kolhapur Local Fund.
English	None	27 1 3	Head Master, 1st Grade Anglo-Vernacular school, Kalsa.	80 0 0	
English, Persian, Urdu, and a little of Marathi	None ..	15 4 0	Head Master, Anglo-Vernacular School, Lakhkam.	84 0 0	Paid from Local Funds.
English	None	25 0 10	Head Master, Parel Panchayet English School, Surat.	80 0 0	From Parel Panchayet Fund.
English and Hindustani.	None	22 9 6	Fifth Assistant Master (Marathi Side), Elphinstone High School.	88 0 0	
English and Latin.	F. A., 1876 ..	11 2 17	Sub. *pro tem.* Fourth Assistant, Poona High school.	80 0 0	
English, Persian, and Hindustani.	Matriculated 1866.	17 8 8	Third Assistant, Hyderabad High School.	60 0 0	
English, Marathi, and Persian.	Matriculated 1863.	11 3 0	Second Assistant Master, Dhulia High School.	80 0 0	
English	Matriculated 1867.	11 1 8	Acting Seventh Assistant and permanent Eighth Assistant (Gujarati Side), Elphinstone High School.	80 0 0	
English, Arabic, and Hindustani.	None ..	7 2 0	Persian Teacher, Elphinstone High School.	65 0 0	
English and Sanskrit.	Matriculated 1869	8 1 24	Acting Third Assistant Master, N. J. High school, Ratnagiri.	80 0 0	

No.	Name.	Age	Caste or Religion.	Birth-place	Where educated.	Vernacular
1	2	3	4	5	6	7
172	Bhavanishankar Narsinhshankar Dave.	35	Brahmin	Surat	Elphinstone College and Surat High School.	Gujarati
174	Framroozji Jamasdji Balwagar.	29	Parsi	Gandevi ..	Elphinstone College.	Gujarati
175	Dahabhji D. Vaji	39	Bhatia ..	Tankara (Rajkot).	Elphinstone College.	Gujarati
176	Sitaram Bhagwantlala ..	27	Parbhu ..	Ratnagiri ..	Elphinstone College.	Marathi
177	Balkrishna Nathbhram Purohit.	34	Brahmin ..	Broach	Elphinstone College.	Gujarati
178	Framji Ratanji Master ..	29	Parsi	Surat	Elphinstone College.	Gujarati
179	Hoshangji Barjorji Varia ..	28	Parsi	Surat	Elphinstone College.	Gujarati
180	Abdulaziz Mahomedabdul Rowtel.	27	Mahomedan ..	Kabul	Arabian Shiraz	Hindustani
181	Hanchandra Vinayak Oke	46	Brahmin ..	Poona ..	Poona College	Marathi
182	Vithal Wamon Godbole ..	41	Brahmin ..	Kolwan (Konkan)	Poona Training College.	Marathi
183	Narayan Jamadhar Vaji ..	43	Brahmin ..	Mahad	Deccan College	Marathi
184	Harjivanlakh Mujji Vijaya ..	40	Vania ..	Nadiad	Ahmedabad Training College.	Gujarati
185	Appaji Baburao Divekar ..	42	Gowl Brahmin	Dharwar ..	Dr. Wilson's College.	Marathi
186	Trikamji Gopal Bhuva ..	38	Brahmin ..	Ratnagiri ..	Poona Training College.	Marathi
187	Chintaman Shastri Thatte ..	39	Brahmin ..	Wai	Poona Sanskrit College.	Marathi
188	Nilkanth Moreshwar Sathe ..	39	Brahmin ..	Poona	Poona High School.	Marathi
189	Ratanlal T. Devatia ..	33	Brahmin ..	Ahmedabad ..	Ahmedabad High School.	Gujarati
190	Govind Tatia Dixit	37	Brahmin ..	Poona	Poona Mission School.	Marathi
191	Ratanlal Mulchchand Gogari.	27	Vania ..	Gogha	Bhavnagar Eng. Sch. School	Gujarati
192	Datto Narsing Joshi	35	Brahmin ..	Jamsande (Ratnagiri).	Free Church Institution, Bombay.	Marathi

Other Languages known.	University standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	F.E.A., 1869	1 5 28	Fourth Assistant Master, Surat High School.	80 0 0	
English and Latin.	F.E.A., 1869	7 10 24	Seventh Assistant Master (2 Sl. Elphinstone High School.	80 0 0	On leave without pay.
English and Sanskrit.	F.E.A., 1870.	7 3 10	Second Assistant Master, Kolhapur High School, Rajkot.	80 0 0	From Kolhapur Educational Fund, On leave.
English and Sanskrit.	F.E.A., 1871.	7 8 4	Third Assistant Master, Ratnagiri High School.	80 0 0	
English and Sanskrit.	F.E.A., 1877.	7 2 17	Second Assistant, Karanjgar High School.	80 0 0	Paid from Kolhapur Educational Fund.
English and Persian.	B.A., 1877.	0 4 0	Sub. pro-tem. Fourth Assistant, Ahmedabad High School.	80 0 0	
English and Persian.	B.A., 1878.	0 2 16	Sub. pro-tem. Second Assistant, Kolhapur High School.	80 0 0	Paid From Kolhapur Educational Fund.
English, Persian, Arabic, Sindhi, Bombay, Gujrati, and Dakanni.	None	5 9 25	Acting Persian Teacher, Dharwad High School.	70 0 0	Permanent incumbent Mr. Dalvanjee Framjee Mirza On leave.
English, Sanskrit and Gujarati.	None	22 2 12	Assistant Deputy Educational Inspector, Kaira and Nagar Sub-division.	75 0 0	
English and a little of Sanskrit.	None	20 15 16	Assistant Deputy Inspector, Khandesh Sub-division.	75 0 0	
English	None	20 4 16	Head Clerk, Educational Inspector, Central Division.	75 0 0	
English and a little of Persian and Marathi.	None	19 4 0	Assistant Deputy Educational Inspector, Kaira and Broach.	75 0 0	
English and Kanarese.	None	19 6 0	Assistant Deputy Inspector, Belgaum and Kaladgi.	75 0 0	
English and Kanarese.	None	19 1 9	Head Master, Training College, Kolhapur.	75 0 0	Paid from Kolhapur state.
Sanskrit	None	16 2 4	First Assistant Master, Sanskrit Teacher, Deccan College.	75 0 0	
English and Sanskrit.	None	16 6 0	Assistant Deputy Educational Inspector, Poona Sub-division.	75 0 0	
English and a little of Sanskrit.	Matriculated 1866.	10 0 14	First Assistant Master, Training College, Ahmedabad.	75 0 0	
English	Matriculated 1868.	15 10 28	Head Master, 1st Grade Anglo-Vernacular School, Surat.	75 0 0	
English	None	15 4 3	Assistant Deputy Educational Inspector, Ahmedabad and Kaira Sub-division.	75 0 0	
English	Matriculated 1863.	13 9 27	Sixth Assistant Master (Marathi side) Elphinstone High School.	75 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
193	Annaji Vinayak Ambeni ..	37	Brahmin ..	Junnar (Poona)	Poona Mission Refined.	Marathi ..
194	Keraji Sreenivasa Devkula ..	28	Brahmin ..	Wai (Sátára) ..	Poona High School	Marathi ..
195	Gokuldas Kanbis Parekh ..	32	Vania	Umrah	Elphinstone College.	Gujarati ..
196	Vishvanath Gangadhar Khandilkar.	26	Brahmin ..	Poona	Deccan College.	Marathi ..
197	Shankar Ramchandra Bhagwat.	25	Brahmin ..	Wai	Deccan College.	Marathi ..
198	Ganesh Govind Dhekne ..	31	Brahmin ..	Poona	Poona College.	Marathi ..
199	Atmaram Vinayak Pathak ..	44	Gaud Brahmin	Bombay	Deccan College.	Marathi ..
200	Waman Shankarao Vaidya ..	30	Parbhu ..	Alibag	Elphinstone College.	Marathi ..
201	Kavasji Edulji Desai ..	28	Parsi	Navsari	Navsari Madrasha.	Gujarati ..
202	Ramchandra Jasvantji Valigh.	28	Brahmin ..	Ambere (Ratnágiri).	Elphinstone College.	Marathi ..
203	Gajanan Shastri Dokte ..	23	Brahmin ..	Benares	Benares School.	Marathi ..
204	Jamsetji Pestonji Master ..	27	Parsi	Bombay	Elphinstone College.	Gujarati ..
205	Yadneshwar Chintaraji Shastri.	28	Brahmin ..	Surat	Baroda	Marathi ..
206	Vithabai Sakharam Chorghadi.	25	Brahmin ..	Poona	Female Training School, Bombay.	Gujarati ..
207	Framji Jamasji Billimoria.	30	Parsi	Billimora ..	J. J. Institution, Bombay.	Gujarati ..
208	Keshavlal Damodhar Chawal.	29	Parbhu ..	Kalyan	Poona Civil Engineering College.	Marathi ..
209	Ganesh Venkatesh Joshi ..	28	Brahmin ..	Miraj	Elphinstone College.	Marathi ..
210	Madhav Bhikaji Bhatvi ..	26	Brahmin ..	Pen	Elphinstone College.	Marathi ..
211	Rustamji Dhanjibhai Patel ..	27	Parsi	Surat	Elphinstone College.	Gujarati ..
212	Dorabji Sirodji Bharucha ..	22	Parsi	Broach	Elphinstone College.	Gujarati ..
213	Annaji Ramchandra Jire ..	27	Brahmin ..	Mathe	Deccan College.	Marathi ..

Other Languages Known.	University Standing, or Training or College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English	Matriculated 1864.	13 9 28	Head Master, 1st Grade Anglo-Vernacular School, Pandharpur.	75 0 0	
English	Matriculated 1866.	12 10 6	First Assistant Master, Poona Training College.	75 0 0	
English, Marathi, Hindustani, Persian, and Sanskrit.	B.A., LL.B., 1871.	12 9 7	Deputy Educational Inspector, Gujarát Schools, Bombay.	75 0 0	
English and Sanskrit.	Matriculated 1864.	11 6 0	Head Master, Jamkhandi English School.	75 0 0	From the Non-Khanderi Scale
English and Sanskrit.	Matriculated 1861.	11 3 25	Sub. pro-tem. Second Assistant, English School, Thána.	75 0 0	
English and a little of Sanskrit.	Matriculated 1865.	11 2 15	Second Assistant Master, High School, Ahmednagar.	75 0 0	
English and Gujarati.	None ..	10 10 0	Assistant Superintendent of the Native Press and Registrar of Native Publications.	75 0 0	Besides Proprietary Interest
English, Latin, and Hindustani.	Matriculated 1867.	9 9 7	Probationary Assistant Deputy Inspector, Thána.	75 0 0	
A little of English.	None ..	8 4 20	Gymnastic Teacher, Rs. 60 for performing the duties of Third Assistant, Rs. 15 Librarian, Rájkumár College, 10	75 0 0	Paid from the Rájkumár Coll. Fund.
English, Sanskrit, and Kanarese.	F.E.A., 1870.	8 1 5	English and Sanskrit Teacher, Belgaum High School.	75 0 0	
Sanskrit	None ..	7 2 20	Sanskrit Teacher, Elphinstone College, Bombay.	75 0 0	
English and Latin.	F.C.E. 1868.	7 1 25	Head Master, Chandragadh 1st Grade Anglo-Vernacular School, Bombay.	75 0 0	
Sanskrit, Gujarati, and Hindustani.	None ..	6 10 0	Superintendent of Sanskrit Schools, Baroda.	75 0 0	From Baroda State.
English and a little of Sanskrit.	None ..	6 5 16	Head Mistress, Girls' School, Bhávnagar.	75 0 0	Paid from Rá Children Educational Funds.
English and Latin.	F.E.A., 1870.	6 7 27	Acting 5th, Permanent Ninth Assistant Master (U.S.) Elphinstone High School.	75 0 0	
English	F.C.E., 1871.	6 2 10	Assistant Master, English School, Hyderabad.	75 0 0	
English and Sanskrit.	B.A., 1871. ..	5 6 29	Second Assistant Master, High school, Násik.	75 0 0	
English and Sanskrit.	F.E.A., 1873.	4 2 11	Second Assistant, High School, Ahmed.	75 0 0	Paid from Rá Widow's School Funds.
English and Persian.	F.E.A., 1871.	3 3 0	Sub. pro-tem. Fifth Assistant, Surat High School.	75 0 0	
English and Persian.	B.A. ..	2 2 12	Sub. pro-tem. Seventh Assistant Master, High School, Broach.	75 0 0	
English and Sanskrit.	B.A., 1874.	2 11 21	Acting Fifth Assistant Master, High School, Poona.	75 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
214	Ratanchadlal Lallubhai Khambata.	24	Bania	Surat	Elphinstone College.	Gujarati
215	Gopal Ramchandra Gokhale.	23	Brahmin	Ujalavi (Satara D).	Elphinstone College.	Marathi
216	Kanjibhji Kalanji Desai	22	Brahmin	Kaldgam	Elphinstone College	Gujarati
217	Shivram Sitaram Wagle	22	Gouri Brahmin	Satalgiri	St. Xavier's College, Bombay.	Marathi
218	Hargovind Harkarayan Vyas	22	Brahmin	Bardoli	Elphinstone College.	Gujarati
219	Mora Waman Kirtane	24	Brahmin	Poona	Deccan College	Marathi

CLASS IV.—Rs. 50

220	Gurmukhsingh Lalsing Khandalli.	34	Hindu	Sehwan	Normal School, Hyderabad.	Sindhi
221	Vinayak Daji Belsare	29	Brahmin	Poona	Poona College	Marathi
222	Gopal Ramji Malay	46	Kasar	Ahmedabad	Poona College	Marathi
223	Ramchandra Dhirji Gunjikar.	26	Gouri Brahmin	Belgaum	Elphinstone College.	Marathi
224	Keshav Shridhar Bage	24	Gouri Brahmin	Jamkhandi	Elphinstone College.	Marathi
225	Krishnaji Raghunath Kelkar	24	Brahmin	Sangameshwar	Poona College	Marathi
226	Motiram Ujan Gantinarayan Tarvadi.	22	Brahmin	Surat	Surat High School and Elphinstone College.	Gujarati
227	Chaturbhuj Nathuram Jodhpura.	30	Brahmin	Gondal	Rajkot High School	Gujarati
228	Nandkrishnalal Bakhalal Majmudar.	24	Brahmin	Surat	Elphinstone College.	Gujarati
229	Gangaram Madhavram Mehta.	26	Brahmin	Surat	Elphinstone College	Gujarati
230	Bango Balkrishna Abre	29	Brahmin	Poona	Deccan College	Marathi
231	Anant Appaji Ranalekar	29	Brahmin	Sirkes	Deccan College	Marathi

Other Languages known.	University Standing or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	F.E.A., 1873	2 10 13	5th. pro-tem. Fifth Assistant Master, Ahmedabad High School.	75 0 0	
English and Gujarati.	B.A., 1877	1 7 25	Teller to the Chief of Revenue Survey.	75 0 0	Paid from Ichalkaranji State.
English and Sanskrit.	B.A., 1876	1 6 28	Second Assistant, Surat High School.	75 0 0	
English, Latin, French, Gujarati and Hindustani.	B.A., 1876	1 2 26	5th. pro-tem. Deputy Educational Inspector, Martin Schools, Bombay.	75 0 0	
English and Sanskrit.	F.E.A., 1877	1 4 29	5th. pro-tem. Third Assistant Master, Kathiawar High School.	75 0 0	Paid from Kathiawar Educational Funds.
English and Latin.	B.A., 1877	1 4 29	First Assistant Master, English School, Kalyan.	75 0 0	

and below Rs. 75.

English and Persian.	None	17 10 0	Head Master, Vernacular School, Chikalpur.	70 0 0	From Local Funds.
English and Kanarese.	None	14 2 0	Head Clerk, Educational Inspector, Southern Division's Office.	70 0 0	
English and Gujarati.	None	14 1 2	Second Clerk, Director of Public Instruction's Office.	70 0 0	Served also in Judge's Office, Poona, for 2-6-0.
English, Sanskrit and Kanarese.	Matriculated 1874.	12 9 24	Seventh Assistant Master (Marathi Side), Elphinstone High School.	70 0 0	
English and Sanskrit.	Matriculated 1869.	11 4 21	Fourth Assistant Master, Ratnagiri High School.	70 0 0	
English and Sanskrit.	Matriculated 1864.	10 10 0	Acting Assistant Deputy Educational Inspector, Nasik Range.	70 0 0	
English and Latin.	Matriculated 1864.	10 2 0	Head Master, 1st Grade Anglo-Vernacular School, Vinzapatam.	70 0 0	
English ...	Matriculated 1868.	6 6 0	Head Master, English School, Gondal.	70 0 0	From Kathiawar Educational Funds.
English and Sanskrit.	F.E.A., 1874	4 1 13	Sixth Assistant Master, Surat High School.	70 0 0	
English and Sanskrit.	Matriculated 1869.	4 1 0	Third Assistant Master, High School, Ahmednagar.	70 0 0	From Kathiawar Educational Funds.
English and Sanskrit.	F.A., 1875	3 1 0	5th. pro-tem. Sixth Assistant, Poona High School.	70 0 0	
English and Sanskrit	F.E.A., 1874	2 11 4	Head Master, English School, Sangli, and now acting Deputy Inspector, Sangli.	70 0 0	Paid from Sangli State.

No.	Name	Age	Caste or Religion.	Birth place.	Where educated.	Vernacular
1	2	3	4	5	6	7
227	Sarosji Fakanji Desai ..	27	Parsi ..	Bombay ..	Elphinstone College.	Gujarati ..
228	Prabhat Narayan Pej ..	28	Brahmin ..	Ratnagiri ..	Elphinstone College.	Marathi ..
234	Ratnkrishna Chintamanji Bapat.	27	Brahmin ..	Anjarla (Ratnagiri.)	Deccan College.	Marathi ..
235	Dattatraya Jagannath Deshpande.	29	Brahmin ..	Dhulia (Khandesh.)	Dhulia High School.	Marathi ..
236	Manilal Jaggivandas Bhatt ..	29	Vania	Broach	Broach and Ahmednagar High School.	Gujarati ..
237	Vishwanath Dandekar Deodhar.	40	Brahmin ..	Ratnagiri ..	Poona High School.	Marathi ..
238	Dattatraya Balvantrao Bhaigaonkar.	22	Parbhu ..	Bombay ..	Elphinstone and Grant Medical Colleges.	Marathi ..
239	Sahebrao Tarachand Chandiramani.	19	Amil	Hyderabad ..	Mission School, Hyderabad.	Sindhi ..
240	Dwarkabai Balkrishna Dhaleka.	32	Brahmin ..	Kukarwad ..	Deccan College.	Marathi ..
241	Shrinivas Kashav Bodas ..	29	Brahmin ..	Dharwar ..	Deccan College.	Kanarese ..
242	Manekji Dadabhai Arjani ..	25	Parsi	Navsari ..	Elphinstone College.	Gujarati ..
243	Hormasji Nowroji Lord ..	29	Parsi	Bombay ..	Elphinstone College.	Gujarati ..
244	Annaji Raghunathrao Jadhav.	27	Brahmin ..	Jalihal	Deccan College.	Kanarese ..
245	Waman Gopal Indapurkar ..	29	Brahmin ..	Indapur	Deccan College.	Marathi ..
246	Babaji V. Kamat	24	Brahmin ..	Kalaigi	Deccan College.	Kanarese ..
247	Dhondbar Ganesh Kelkar ..	26	Brahmin ..	Poona	Deccan College.	Marathi ..
248	Raghunath V. Sahnis ..	24	Parbhu ..	Kolhapur ..	Elphinstone College.	Marathi ..
249	Ramchandra Narayan Bhave.	42	Brahmin ..	Khed	Poona Normal School.	Marathi ..
250	Tripurashankar Manishankar Dave.	37	Brahmin ..	Surat	Surat High School.	Gujarati ..
251	Vallabhdas Gopalji Saheria ..	41	Vania	Nadiad	Nadiad English School.	Gujarati ..
252	Ramvallabhdas Devram Dave.	42	Brahmin ..	Kaira	Kaira Vernacular School.	Gujarati ..

Other Languages known.	University Standing or Training College Certificate	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Latin	B.A., 1874 ..	2 5 21	Acting 5th, Permanent Tenth Assistant Master, Elphinstone High School.	70 0 0	
English and Sanskrit.	B.A., 1872..	1 7 6	Second Assistant Master, High School, Sholápur.	75 0 0	
English	Matriculated 1864.	14 7 12	Seventh Assistant Master, Poona High School.	65 0 0	
English and a little of Sanskrit.	Matriculated 1866.	14 7 9	Third Assistant Master, High School, Dhulia.	80 0 0	On sick leave.
English	Matriculated 1874.	11 6 9	Acting Second Assistant Master, Rajkumar College.	85 0 0	Paid from the Rajkumar College Fund.
English	None ..	14 2 1	Third Clerk, Director of Public Instruction's Office.	60 0 0	Period also in Commissioner of Police' Office, 1-4-'71, and in Collector's Office, Poona, 21-2-'72.
English and Gujarati.	Matriculated 1869.	11 6 17	Eighth Assistant Master, (Marathi Side), Elphinstone High School.	65 0 0	
English, Persian and Hindustani.	Matriculated 1868.	10 9 0	Head Master, Anglo-Vernacular School, Satara.	65 0 0	Paid from Local Funds.
English and Sanskrit.	F.E.A., 1869..	7 2 13	Second Assistant Master, Rajaram High School, Kolhapur (now acting as Tutor to the Chief of Miraj; pay Rs. 100).	65 0 0	Paid from Kolhapur State.
English, Sanskrit, Marathi, Telugu, and a little of Hindustani.	Matriculated 1870.	7 2 5	Assistant Deputy Educational Inspector, Dharwar.	65 0 0	
English and Persian.	F.E.A., 1870 ..	5 10 27	Acting Tenth and Permanent Eleventh Assistant Master (Gujarati Side), Elphinstone High School.	62 0 0	
English and Sanskrit.	Matriculated 1867.	5 6 5	Acting 11th, Permanent Twelfth Assistant Master (M. S.), Elphinstone High School.	65 0 0	
English, Sanskrit and Marathi.	Matriculated 1870.	4 7 13	Head Master, English School, Satara.	65 0 0	Paid from the Satara State.
English, Kánarese and Persian.	B.A., 1874...	1 2 19	Second Assistant Master, High School, Dharwar.	65 0 0	
English, Sanskrit and Marathi.	F.E.A., 1870 ..	3 2 24	Third Assistant Master, Dharwar High School.	60 0 0	On leave.
English and Latin.	B.A., 1870..	0 4 24	Acting First Assistant (M. S.), Elphinstone High School.	80 0 0	
English and Sanskrit.	B.A., 1872..	1 9 0	Acting Third Assistant, Dhulia High School; Permanent Third Assistant, Thána English School.	62 0 0	
English	None ..	21 5 12	Deputy Educational Inspector, Phaltan State.	81 1 3	
A little of English.	None ..	20 4 0	Head Master, Vernacular School No. 1., Surat.	80 0 0	From Local Funds.
A little of Sanskrit.	None ..	25 2 14	Head Master, Vernacular School, Bhávnagar.	80 0 0	From Káthiáwár Educational Funds.
A little of English.	None ..	24 5 17	Sub-pradhán Head Clerk, Educational Inspector, S. D.	80 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
250	Gulabdas Dayaram Mehta	44	Vania	Surat	Surat Schoolmasters' Training College.	Gujarati
254	Fatmahbai Mahomed Abdulla Kazi.	49	Mahomedan	Old Hills	Normal School, Kurrachee.	Sindhi
255	Hargovind Mayaram Sukul	29	Brahmin	Umreth	Ahmedabad Training College.	Gujarati
256	Ishvarlal Vrajlalvasulal Shahs.	19	Vania	Ahmedabad	Ahmedabad High School.	Gujarati
257	Balaji Hari Dasar	20	Brahmin	Poona	Poona Mission School.	Marathi
258	Muni Bhji Nanjibhi	47	Brahmin	Jakmpur	Free Church Mission School, Sikara.	Marathi
259	Gopalji Gokalbhai Desai	41	Brahmin	Umreth	Surat High School.	Gujarati
260	Ayatmal Nandanmal Shahdadpore.	28	Hindu Amil	Hyderabad	Hyderabad Normal School.	Sindhi
261	Devarani Karsanji Vora	42	Brahmin	Mavri	Rajkot Normal School.	Gujarati
262	Ahmedshankar Tripurashankar Dave.	31	Brahmin	Surat	Surat High School.	Gujarati
263	Murlijmal Vishram Kirpalani	26	Hindu	Hydrabad(Sind)	Hyderabad High School.	Sindhi
264	Khakji Hansraji Vaidya	30	Parsi	Bombay	Elphinstone High School.	Gujarati
265	Krishnaji Keshav Sathe	34	Brahmin	Poona	Deccan College.	Marathi
266	Jamshedji Rustomji Patrawala	42	Brahmin	Bombay	Baleigiri	Marathi
267	Gopal Govind Karvankhar	22	Brahmin	Girvee	Elphinstone College.	Marathi
268	Balaji Khanderow Joshi	20	Brahmin	Poona	Poona High School.	Marathi
269	Ramchandra Venkatesh Ranade.	43	Gouri Brahmin	Pandgul (Belgaum).	Elphinstone College.	Marathi
270	Balkhim Sakharam Tambulkar.	32	Brahmin	Tarapur (Bhandara).	Poona School.	Marathi
271	Dayalji Morarji Desai	23	Brahmin	Sarbhon	Surat High School.	Gujarati
272	Harilal Narmadji	20	Brahmin	Ahmedabad	Ahmedabad High School.	Gujarati
273	Narayan Govind Karandikar.	22	Brahmin	Karkadi	Deccan College.	Marathi
274	Harilal Lakhmanrai Majmundar.	20	Brahmin	Pitlad	Elphinstone College.	Gujarati
275	Gopal Vasudeo Padsek	20	Brahmin	Kerlad (Kaira)	Elphinstone College.	Gujarati

Other Languages known.	University Standing, or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English	None ..	23 6 2	Head Master, Vernacular School, Ankleswar.	60 0 0	From Local Funds.
Arabic, Persian, and Urdu.	None ..	23 3 0	First Assistant Master, Normal School, Hyderabad.	60 0 0	
A little of English and Sanskrit.	Trained according to old system	20 5 26	Head Master, Vernacular School, Nadiad.	60 0 0	From Local Fund.
English and a little of Urdu.	Matriculated 1865.	20 4 9	Third Assistant, Nadiad High School.	60 0 0	
English	None ..	19 2 19	Eighth Assistant Master, Poona High School.	60 0 0	
English and a little of Sanskrit.	None ..	17 3 0	Head Clerk, Educational Inspector, North-East Division.	60 0 0	
English and a little of Urdu.	None ..	16 6 0	Head Clerk, Educational Inspector, S. D.	60 0 0	On leave.
English, Persian, and Hindustani.	None ..	16 4 16	Head Master, Vernacular School, Kurrachee.	60 0 0	Paid from Local Fund.
None	None ..	15 10 20	Head Master, Vernacular School, Nagar.	60 0 0	From Kathiawar Educational Funds.
English	Matriculated 1864.	15 8 16	Seventh Assistant Master, Surat High School.	60 0 0	
English, Persian, and Hindustani.	None ..	15 4 0	Fourth Assistant Master, Hyderabad High School.	60 0 0	
English	None ..	14 6 0	First Assistant Master, Gokuldas Tejpal 1st Grade Anglo-Vernacular School, Bombay.	60 0 0	
English and Sanskrit.	Matriculated 1864.	13 3 15	Third Assistant Master, High School, Satara.	60 0 0	
English and Sanskrit.	Matriculated 1865.	12 0 0	Tutor to the Raja of Akalkot.	60 0 0	Paid from Akalkot State.
English	Matriculated 1866.	11 9 26	Fifth Assistant Master, Ratnagiri High School.	60 0 0	
English and a little of Sanskrit.	Matriculated 1867.	11 3 15	Second Assistant Master, English School, Sholapur.	60 0 0	
English	None ..	10 9 7	Second Clerk, Curator, Government Central Book Depôt, Bombay.	60 0 0	
English and a little of Kanarese.	Matriculated 1868.	10 9 5	Head Master, Anglo-Vernacular School, Mitaj.	60 0 0	Paid from Miraj State.
English	Matriculated 1867	10 7 0	Head Master, English School, Limbdi.	60 0 0	Paid from Kathiawar Educational Funds.
English	Matriculated 1868.	10 2 15	Second Assistant, Training College, Ahmedabad.	60 0 0	
English and Sanskrit.	Matriculated 1863.	9 10 20	Third Assistant Master, Rajkot High School, Kolhapur; now sub-pro-tem Second Assistant. Pay Rs. 60.	60 0 0	Paid from Kolhapur State.
English	Matriculated 1869.	9 0 18	Head Master, 1st Grade Anglo-Vernacular School, Camp Dhoola.	60 0 0	
English, Sanskrit, and a little of Marathi.	Matriculated 1868.	9 1 15	Third Assistant Master, Broach High School.	60 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
276	Jehangirjí Thanvendas Vakíl.	31	Amil ..	Hyderabad (Sind)	Hyderabad Mission School.	Sindhí ..
277	Manockjí Manchorjí Chokí..	27	Parsí ..	Bombay ..	Elphinstone College.	Gujarátí ..
278	Shivrámshankar Girjáshankar Joshí.	41	Deshasth	Amraoti ..	Surat High School.	Gujarátí ..
279	Govind Krishna Ambarkhar.	29	Brahmin ..	Ratnágirí ..	Elphinstone and Deccan Colleges.	Maráthí ..
280	Udhavdás Seevandas ..	30	Kshatriya ..	Thatta ..	Karachee High School.	Sindhí ..
281	Umedalí Karim Mahomed Mandvi.	30	Mahomedan ..	Cutch ..	Elphinstone College.	Cutchí ..
282	Trimbak Vishnú Bapat ..	40	Brahmin ..	Poona ..	Free General Assembly's Institution.	Maráthí ..
283	Framjí Kawasjí Bajan ..	27	Parsí ..	Bombay ..	Elphinstone College.	Gujarátí ..
284	Dayalbhai Vardham Mahetá ..	26	Brahmin ..	Umreth ..	Ahmedabad High School.	Gujarátí ..
285	Parshuprasád Govindram Mahetá.	24	Prabhu ..	Bhávnagar ..	Bhávnagar High School.	Gujarátí ..
286	Martin Amor	24	Christian ..	Poona ..	Poona Civil Engineering College.	English ..
287	Shankar Sevjí Apte ..	20	Brahmin ..	Degwadi ..	Deccan College ..	Maráthí ..
288	Annáchhu Chandappa Ambhaikar.	24	Brahmin ..	Bijápur ..	Deccan College ..	Canarese ..
289	Dayalsingh Jetsingbhai Alamchandjí.	24	Amil ..	Hyderabad ..	Elphinstone College.	Sindhí ..
290	Khodáu Masjed Bagvi ..	24	Christian ..	Mangalore ..	Sydapet Agricultural College.	Canarese ..
291	C. Anastalia Muller. ..	25	Vellalah ..	Chingleput ..	Madras Agricultural College.	Tamil ..
292	Dinshaw Dadabhai Misti ..	22	Parsí ..	Bombay ..	Madras Agricultural College.	Gujarátí ..
293	Abdulkar D. Collah	21	Parsí ..	Bombay ..	Madras Agricultural College.	Gujarátí ..
294	Framjí Nowrozjí Khambata	21	Parsí ..	Surat ..	Agricultural School, Hyderabad.	Gujarátí ..
295	Jehangir Manchorjí Cooka	21	Parsí ..	Bombay ..	Madras Agricultural College.	Gujarátí ..

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Persian.	Matriculated 1868.	8 0 4	Acting Fifth Assistant Master, High School, Hyderabad.	60 0 0	Permanent. Succeeded Mr. H. V. Gore.
English and Latin.	Matriculated 1868.	7 2 27	First Assistant Master, Port Branch Anglo-Vernacular School, Bombay.	80 0 0	
English and a little of Marathi.	Matriculated 1867.	7 9 9	Head Master, Vernacular School, Wadwada.	80 0 0	From Kolhapur Education Fund.
English, Sanskrit and Kanarese.	F.E.A., 1869.	7 7 18	Second Assistant Master, (Marathi Side,) Belgaum High School.	80 0 0	
English, Persian and a little of Gujarati.	Matriculated 1871.	7 3 13	Acting Fourth Assistant Master, High School, Karachee.	60 0 0	
English, Gujarati, Sindhi, Hindustani, and Persian.	Matriculated 1871.	6 6 4	Acting Second Assistant Master, High School, Shikarpur.	60 0 0	
English ..	None ..	5 8 11	Assistant, Educational Inspector, Central Division's Office.	60 0 0	
English and Persian.	Matriculated 1871.	4 4 14	Acting 12th, Permanent 19th Assistant Master (G. S.) Elphinstone High School.		
English and Sanskrit.	Matriculated 1872.	4 1 16	Head Master, 7th Grade School, Mahuva.	50 0 0	
English	Matriculated	3 10 12	Third Assistant Master, High School, Bharooch.	60 0 0	From Kolhapur Education Funds.
Marathi	None ..	3 3 0	Acting Head Vernacular Teacher, Poona Civil Engineering College.	60 0 0	
English, Kanarese and Persian.	F. A., 1873.	2 11 24	Fourth Assistant, Dharwar High School.	60 0 0	
English, Sanskrit and Marathi.	F. A., 1873.	2 2 24	Sub. pro-tem. Fourth Assistant, Dharwar High School.	60 0 0	
English and Persian.	F.E.A. 1870.	0 7 20	Sub. pro-tem Persian Teacher, High School, Karwarbar.	60 0 0	
English, Malayalam, Tamil.	College Certificate.	0 3 28	Agricultural Teacher, Sirsi High School.	60 0 0	
English and Telugu.	None ..	0 3 28	Agricultural Teacher, Ahmednagar High School.	60 0 0	
English	Matriculated	0 3 28	Agricultural Teacher, Broach High School.	60 0 0	
English	None ..	0 3 9	Agricultural Teacher, Nadiad High School.	60 0 0	
English	None ..	0 3 5	Agricultural Teacher, N. J. High School, Kolhapur.	60 0 0	
English	Agricultural College Certificate	0 3 26	Agricultural Teacher, Surat High School.	60 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
196	Krishnaji Govind Oak	27	Brahmin	Mahad	Deccan College	Marathi
197	Bamanji N. Dadina	25	Parsi	Bombay	Sydapet College	Gujarati
198	Gopal Malhar Patwardhan	40	Brahmin	Poona	Poona Government English School.	Marathi
199	Pestonjeebaad Yessoonjee Bulsara.	29	Amil	Hyderabad, Sind	Hyderabad Normal College.	Sindhi
200	Ramchandra Hari Dasar	27	Brahmin	Poona	Poona College	Marathi
201	Pranjeevan Jeshuram Mehta	47	Brahmin	Surat	Vernacular School, Ogol.	Gujarati
202	Narmashankar Kamalashankar.	48	Brahmin	Surat	Surat Normal Class.	Gujarati
203	Vajeram Prabhashankar	40	Brahmin	Mandvi	Surat High School.	Gujarati
204	Nowrozjee Cherji Mody	39	Parsi	Surat	Elphinstone High School.	Gujarati
205	Baroji Trimbak Agasar	29	Brahmin	Toke	Poona High School.	Marathi
206	Waman Atma Wasudeo	28	Kulastria	Bombay	Elphinstone High School.	Marathi
207	Jadowji Manji Ghanchi	28	Vania	Malwa	Ahmedabad Training College.	Gujarati
208	Gulabdas Lalbhai Kamavati	27	Vania	Surat	Elphinstone College.	Gujarati
209	Narayan Bhikaji [illegible]	29	Brahmin	Mah Bara	Elphinstone College.	Marathi
210	Erachji Rustamji Sohrab	28	Parsi	Navsari	Elphinstone College.	Gujarati
211	Venkatesh Shivram Bhandiwad.	30	Brahmin	Bhandivad	Deccan College	Kanarese
212	Devdat Dhanesheer Shukla.	23	Brahmin	Ankleswar	Elphinstone College.	Gujarati
213	Mahadeo Shivram Apte	23	Brahmin	Vengurla	Deccan College	Marathi
214	Chandrashankar Pranshankar Tarvadi.	22	Brahmin	Surat	Elphinstone College.	Gujarati
215	Mahomed Isak Abdul Rahaman Kazi.	23	Mahomedan	Rajpat(Lakkha)	Persian Ala Private School.	Sindhi

Other Languages known	University standing, or Training College Certificate.	Period of Service in the Inferior.	Present Appointment.	Monthly salary.	Remarks.
9	10	11	12	13	14
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	F. E. A., 1874	6 2 8	Sub. pro-tem. second Assistant, English School, Thana	60 0 0	
English and Hindustani.	Matriculated 1879.	0 7 1	Agricultural Teacher, Dharlia High School.	30 0 0	
English . .	None . .	27 10 0	Clerk and Librarian, Deccan College, Poona	37 0 0	
Persian, English, and Hindustani	Matriculated 1880.	10 7 0	Acting Persian Teacher, Sirkarjur High School	37 0 0	
English, Sanskrit and Kanarese	Matriculated 1880.	14 10 24	Head Master, Anglo-Vernacular School, Akalkot.	60 0 0	Paid from Akalkot State.
Sanskrit . .	None . .	24 10 29	Head Master, Vernacular School, Amrol.	25 0 0	Paid from Local Fund.
A little of English.	None . .	15 9 12	Head Master, Vernacular School, Ojhar.	60 0 0	Do.
A little of English.	None . .	21 0 19	Head Master, Vernacular School, Malvdi.	50 0 0	
English . .	None . .	17 5 8	Second Assistant Master, Fort French School, Bombay.	55 0 0	
English and Sanskrit.	Matriculated	9 1 10	Deputy Educational Inspector, Rhor State.	95 0 0	
English . .	None . .	7 2 9	Clerk and Librarian, Ahmednagar High School.	30 0 0	
A little of Sanskrit.	None . .	6 8 27	Head Master, Vernacular School, Shirdani.	25 0 0	Paid from Ahmednagar Municipal Fund
English and Latin.	Matriculated 1862.	5 9 21	Eighth Assistant Master, Surat High School.	35 0 0	He leave without pay.
English and Sanskrit.	F. E. A., 1874	4 4 5	Sub. pro-tem. Fourth Assistant Master, Rajkot High School, Kathiawar.	55 0 0	Paid from Rajkot State.
English and Persian.	Matriculated 1871.	3 2 20	Acting 25th, Permanent Ninth Assistant Master (Marathi Side), Elphinstone High School.	45 0 0	"
English, Sanskrit and Marathi.	F. E. A., 1879.	1 9 28	First Assistant (Kanarese Side), Belgaum High School.	35 0 0	He takes without pay.
English and Sanskrit.	B.A., 1879 .	0 3 26	Acting Ninth Assistant (H. S.) Permanent Assistant and Persian Teacher, Elphinstone High School.	45 0 0	
English, Sanskrit, Colloquial Kanarese.	F.A., 1878 .	0 5 16	Sub. pro-tem. First Assistant (Kanarese Side).	35 0 0	
English and Sanskrit.	B.A., 1879	2 2 18	30th pro-tem. Eighth Assistant, Surat High School.	35 0 0	
Persian and Urdu.	None . .	12 . 0	Head Master, Vernacular School, Kolar	50 0 0	From Local Funds.

No.	Name	Age	Caste or Religion	Birth-place	Where educated	Vernacular
1	2	3	4	5	6	7
816	Subramanya Pranavananda Das.	35	Brahmin	Gaudesi	Bidarnagar High School.	Telugu.
817	Dahyabhai Motiljibhai Das	24	Sonar	Nagda	Bidarnagar	Gujarati
818	Bapu Sadasivan	40	Maratha	Ratnagiri	Ratnagiri School	Marathi
819	Sakoji Hari Agashe	31	Maratha	Vaghan	Ratnagiri School	Marathi
820	Ugrashekar Ajivanam Dave	51	Brahmin	Valodi	Normal school, Baroda.	Gujarati
821	Paragji Valabram Naik	40	Brahmin	Kathlagam	Surat English School.	Gujarati
822	Ambaram Motiram Parmar	44	Brahmin	Mahmudabad	Surat Normal Class.	Gujarati
823	Hari Balvant Nagre	43	Brahmin	Sidhpore	Elphinstone High School.	Marathi
824	Shivshankar Ambaram Bhat	41	Brahmin	Mahmudabad	Ahmedabad Training College.	Gujarati
825	Gokalbhai Bathumbia Sheikh	40	Vania	Surat	Surat High School.	Gujarati
826	Narayan Ramakrishna Vaidya	45	Brahmin	Poona	Poona College	Marathi
827	Mahomed Afzal Fida Mahomed Kazi.	39	Mahomedan	Sehwan	Normal School Ahmedabad.	Sindhi
828	Dhirajram Vallabhji Bakal	40	Brahmin	Mahur	Ahmedabad Normal Class.	Gujarati
829	Moro Bakaji Bhavsar	44	Brahmin	Nashem (Thana)	Poona Normal School.	Marathi
830	Jai Chetram Vaidharam Seth.	39	Vania	Mandal	Rajkot Normal Class.	Gujarati
831	Vinayak Ramchandra	40	Brahmin	Harsol (Ratnagiri).	Satara English School and Poona Training College.	Marathi
832	Bhaskar Ramchandra Pandit	40	Brahmin	Baroda	Baroda	Marathi
833	Ugrashil Jamaluddin Shahbaz-Khansal.	41	Mahomedan	Hyderabad	Hyderabad School.	Sindhi
834	Visaldas Dhanjibhai Lakhatadia.	37	Patidar	Umrath	Ahmedabad Training College.	Gujarati
835	Motiram Atmaram Lakhadiah	37	Vania	Surat	Surat High School.	Gujarati
836	Ganesh Daji Gadre	41	Brahmin	Junnar	Poona High and Normal Schools.	Marathi
837	Ramchandra Shrinivas Nargal.	32	Brahmin	Sangal, Ukarwadi.	Poona College	Kanarese
838	Shankarshastri Jagjivan Joshi	28	Brahmin	Ankleswar	Broach High School.	Gujarati
839	Shankaria Bachiya Khoja	32	Lingayat	Sangli (Belgaum)	Private School Hospital.	Kanarese

Other Languages known.	University Matric. or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
None	Matriculated	5 2 23	Fourth Assistant, Bharuch High School.	35 5 0	From Deputy Educational Inspector.
None	Matriculated	4 1 0	Fifth Assistant, Bharuch High School.	42 8 0	From Superintendent of Vernacular Schools.
None	None ...	23 11 12	Assistant Deputy Educational Inspector, Kalagirl Subdivision.	65 0 0	
None ...	None ...	21 9 1	Assistant Deputy Educational Inspector, Sirsi Subdivision.	50 0 0	
None	None ...	20 4 6	Head Master, Gujarati School No. 1, Patan.	50 0 0	From Deputy Educational Inspector.
English	None ...	25 9 22	First Assistant Master, French school No. II, Ahmedabad.	50 0 0	
A little of English and Sanskrit.	Trained according to old system.	24 0 0	Head Master, Vernacular School, Umreth.	30 0 0	From Local Fund.
English	None ...	24 2 0	Municipal Accountant, Educational Inspector, Central Division's Office.	50 0 0	
English and Sanskrit.	None ...	23 3 25	Head Master, Female Training College, Ahmedabad.	50 0 0	
English, Urdu and Marathi.	None ...	21 9 27	First Assistant Master, Gujarat Branch School, Surat.	70 0 0	
English	None ...	21 0 0	Clerk, Poona Civil Engineering College.	32 0 0	
Persian	None ...	20 6 17	Second Assistant Master, Normal School, Rajkot.	70 0 0	
English	Trained according to old system.	20 0 0	Head Master, Vernacular School No. 1, Broach.	50 0 0	From Local Fund.
English and a little of Sanskrit.	None ...	19 11 11	Second Assistant Master, Poona Training College.	40 0 0	
None	Trained according to old system.	18 8 21	Head Master, Vernacular School, Gondal.	50 0 0	From Kathiawar Educational Fund.
English	None ...	18 2 25	First Assistant Master, 1st Grade Anglo-Vernacular School, Ahmednagar.	50 0 0	
Sanskrit and Gujarati.	None ...	16 9 0	Sanskrit Teacher, Ahmedabad High School.	40 0 0	
Persian and Urdu.	None ...	16 5 20	Head Master, Vernacular School, Mehar.	50 0 0	Paid from Local Funds.
A little of English.	None ...	16 2 25	First Assistant, Training College, Rajkot.	50 0 0	Paid from Kathiawar Educational Fund.
English	None ...	15 1 0	Sub-pensn. Head Accountant, Educational Inspector, N.D.	50 0 0	
English	None ...	14 6 20	Vernacular Teacher, Poona Female Normal School.	50 0 0	
Sanskrit ...	None ...	13 7 0	Sanskrit Teacher, Dharwar Training College.	50 0 0	
English	None ...	13 5 0	Head Master, 1st Grade Anglo-Vernacular, Nandel.	50 0 0	
Sanskrit ...	None ...	13 1 28	Second Assistant, Training College, Dharwar.	50 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
343	Narayan Parshuram Sathe ..	37	Brahmin ..	Nasik	Private study ..	Marathi ..
344	Mahadeo Krishna Bhandarkar	36	Brahmin ..	Wai	Private School.	Marathi ..
345	Shankar Dalal Sindhar ..	20	Brahmin ..	Chipalun	Ratnagiri High School.	Marathi ..
346	Harilal Kishanlal Desai ..	32	Vania ..	Ahmedabad ..	Ahmedabad High School.	Gujarati ..
344	Waman Sadhoji Phujle ..	30	Brahmin ..	Shenavara (Kolaba).	Dhulia High School.	Marathi ..
345	Shankar Dhondeo Datar ..	25	Brahmin ..	Poona	Poona College.	Marathi ..
346	Vishwanath Sadashiv Deodhar	21	Brahmin ..	Poona	Deccan College.	Marathi ..
347	Ram Narayan Khyalkar ..	32	Brahmin ..	Kurar	Poona High School and Engineering College.	Marathi ..
348	Sakharam Hatshet Gangal.	30	Vania	Sawaiee ..	Ratnagiri High School.	Marathi ..
349	Tulajya Virappa Jadhav ..	29	Mangloa ..	Belgaum ..	Belgaum Anglo-Vernacular High School.	Kanarese ..
350	Narayan Ramchandra Kanhar.	34	Brahmin ..	Mudbe	Rahe College's School, Poona.	Kanarese ..
351	Pokhardas Ghellardas Sapalkhedkar.	22	Amil	Hyderabad (Sind)	Hyderabad Mission school.	Sindhi ..
352	Chenda Krishnaji Gunday ..	31	Brahmin ..	Gunjhoti (Belgaum).	Belgaum & Kolhapur High Schools	Marathi ..
353	Nagindas Lavanidas Dalal ..	21	Vania ..	Surat ..	Surat High School.	Gujarati ..
354	Ghelbhai Gopal	29	Hindu ..	Pardigar, Kathiawar.	Ahmedabad High School and School of Art.	Gujarati ..
355	Nasarwanji M. Perry ..	21	Parsi ..	Bombay ..	Elphinstone High School.	Gujarati ..
356	Shankar Sadashiv Mudbar ..	27	Brahmin ..	Mudbar ..	Belgaum High School.	Kanarese ..
357	Gokuldas Gopalji Nath ..	32	Brahmin ..	Jaldipur ..	Elphinstone College.	Gujarati ..
358	Premanad Kavishwar Sastri ..	29	Hindu ..	Lakhi, Sankhar Taluka.	High School, Karachee	Sindhi ..

Other Languages known.	University Standing or Training College Certificate	Period of Service in the Department	Present Appointment.	Monthly Salary	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	None	22 10 20	Vernacular and Sanscrit Teacher, Poona Training College.	50 0 0	
English and Sanskrit.	None	12 7 0	Assistant Sanskrit Teacher, Elphinstone High School.	50 0 0	
English and a little of Sanskrit.	Matriculated 1868.	12 1 21	First Assistant Master, Jagannath Sankarsett 1st Grade Anglo-Vernacular School, Bombay.	50 0 0	
English ..	Matriculated 1867.	11 9 20	Fourth Assistant Master, Kathiawar High School.	55 0 0	Paid from Kathiawar Educational Funds.
English and a little of Sanskrit.	Matriculated 1867.	11 9 13	Fourth Assistant Master, High School, Dhulia.	60 0 0	
English and Latin.	Matriculated 1868.	11 4 29	Tenth Assistant Master, Poona High School.	50 0 0	
A little of Sanskrit.	Matriculated 1867.	11 4 13	Acting Third Assistant, Kaira Zilla School, Tásra.	50 0 0	
English ..	Matriculated 1867.	11 3 9	Fifth Assistant Master, Dhulia High School.	50 0 0	First grade, 7 annuities and 10 years of which service spent in Miraj state.
English ..	Matriculated 1865.	11 2 9	Sixth Assistant Master, Ratnagiri High School.	50 0 0	
English and Sanscrit.	Matriculated 1864.	10 6 0	Third Assistant Master, Belgaum High School.	70 0 0	
English	Matriculated 1864.	10 4 21	Assistant Master, Rájkót High School.	70 0 0	Paid from Kathiawar state.
Marathi, Persian and Hindustani.	Matriculated 1865.	10 3 20	Acting Third Assistant, High School, Sholápur.	25 0 0	
English, Sanskrit and Káyathi.	Matriculated 1865.	10 3 17	First Assistant, English School, Kaládgi.	50 0 0	
English	Matriculated 1865.	10 3 6	Ninth Assistant Master, High School, Surat.	54 0 0	
English and Marathi.	None ..	9 6 0	Copyist, Sir J. J. School of Art.	30 0 0	
English ..	Matriculated 1868.	9 3 9	Second Assistant, Gokuldas Tejpal School, Bombay.	35 0 0	
English, Káyathi, and Sanskrit.	Matriculated 1870.	9 10 8	First Assistant Master, English School, Belgaum.	40 0 0	
English and Sanskrit.	Matriculated 1868.	9 4 17	Second Assistant, Broach School, Surat.	50 0 0	
English, Hindustani, Marathi and a little of Persian.	Matriculated 1873.	7 8 17	First Assistant Master, Anglo-Vernacular School, Sikkim.	50 0 0	On leave without allowance.

No.	Name.	Age.	Caste or Religion	Birth-place	Where educated.	Vernacular.
1	2	3	4	5	6	7
355	Ramchandra Mukteshvar	23	Brahmin	Baroda	Elphinstone High School.	Marathi
360	Amrit Vithal Pandit	29	Brahmin	Vinchur	Poona High School and Poona Civil Engineering College.	Marathi
361	Velshiram Damodhar Pandya	27	Brahmin	Viramgam	Navsarika High School.	Gujarati
362	Jethalal Vithalji Velavala	29	Vania	Nadiad	Ahmedabad Training College.	Gujarati
363	Shankar Ramchandra Bhatvalvalkar	19	Brahmin	Poona	Deccan College.	Marathi
364	Kiriyadas Ghemchand Gajra	21	Bhatia	Shikarpur	Elphinstone College.	Sindhi
365	Narayan Bandaji Wadke	20	Kasar	Thana	School of Art, Bombay, and Poona Civil Engineering College.	Marathi
366	Ambashankar Prabhashankar Tarvadi	25	Brahmin	Dholka	Ahmedabad High School.	Gujarati
367	Sakharam Vishnu Thilde	29	Brahmin	Tasgaon (Satara)	Deccan College.	Marathi
368	Mulakhi Gangadas Desai	26	Kshatria	Ahmedabad	St. Xavier's College.	Gujarati
369	Ganesh Shridhar Kelatkar	20	Brahmin	Sangli	Ratnagiri	Marathi
370	Gangadhar Pandurang Gadre	27	Brahmin	Wai	Deccan College.	Marathi
371	Lallubhankar Lalshankar Vyas	20	Brahmin	Surat	Elphinstone College.	Gujarati
372	Ramchandra Venkatesh Gadre	29	Brahmin	Wai	Deccan College.	Marathi
373	Baloji Venkatesh Tengiri	29	Brahmin	Bangalore	Deccan College.	Kanarese
374	Laxmishankar Devshankar Bhat	23	Brahmin	Dahlan	Elphinstone College.	Gujarati
375	Manekshaw T. Patel	27	Parsee	Nadiad	Elphinstone College.	Gujarati
376	Ramchandra Jewaji Joshi	24	Brahmin	Sawalgund	Deccan College.	Kanarese

Other Languages known.	University Standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8.	9.	10.	11.	12.	13.
		Y. m. d.		Rs. a. p.	
English	None ..	7 6 4	Acting Head Master, Baroda Vernacular School.	50 0 0	Paid from Baroda State.
English	None .	7 0 11	Drawing Master, Dhulia High School.	50 0 0	
English and Marathi.	Matriculated 1870.	6 10 27	Acting Fifth Assistant Master, Narayan J. High School, Kurrachee.	51 0 0	
A little of English and Sanskrit.	None ..	6 10 19	Head Master, Practising School, Sátára.	50 0 0	From Rástriya Vidyotejak Fund.
English, Sanskrit and a little of Latin.	F.E.A., 1869.	6 6 0	Third Assistant Master, High School, Ahmednagar.	50 0 0	
English and a little of Persian.	Matriculated 1868.	5 5 5	Sub. pro-tem. Fifth Assistant Master, Anglo-Vernacular School, Sukkur.	50 0 0	
English and Gujarati.	None ...	5 0 0	Drawing Master, Training College, Dharwar.	50 0 0	On sick leave for two months.
English	None .	5 0 0	Head Clerk, Director of Vernacular Instruction's Office.	50 0 2	From Baroda State.
English and Sanskrit.	F.E.A., 1872.	4 1 22	Fourth Assistant Master, Sátára High School.	50 0 0	
English and Sanskrit.	Matriculated 1870.	4 1 17	Sanskrit Teacher, Training College, Ahmedabad.	50 0 0	
English, Sanskrit and a little of Kanarese.	Matriculated 1872.	3 1 22	Head Master, Anglo-Vernacular School, Mudhol.	50 0 0	From Mudhol State.
English and Sanskrit.	F. E. A., 1872	3 0 4	Sub. pro-tem. Fourth Assistant Master, Rajaram High School, Kolhapur.	50 0 0	Paid from Kolhapur State.
English and Sanskrit.	Matriculated 1873.	3 4 6	First Assistant Master, Sir Jamsetji School, Surat.	60 0 0	From the Surat Municipal Fund.
English and Sanskrit.	F.E.A., 1871.	3 3 14	Third Assistant Master, High School, Ickalk.	50 0 0	
English and Persian.	Matriculated 1874.	3 3 0	First Assistant Master, Training College, Dharwar.	50 0 0	
English and Sanskrit.	Matriculated 1873.	3 0 29	Head Master, Anglo-Vernacular School, Palanpur.	50 0 0	Palanpur state.
English, Sanskrit and a little of Marathi.	Matriculated 1871.	3 1 4	Temporary Extra Teacher, Rájkumár College.	50 0 0	Paid from the Rájkumár College fund.
English, Marathi and Sanskrit.	Matriculated 1873.	2 4 14	Fourth Assistant Master, Sarwar English School.	50 0 0	

No.	Names.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
357	Lalubhai Mahasukhbhai Bulakhi	24	Patidar	Nadiad	Elphinstone College.	Gujarati
358	Jamshedji Byramji Kanga	27	Parsi	Bombay	Elphinstone College.	Gujarati
359	Ganesham Narayan Pandit	26	Brahmin	Sambeli	Elphinstone College.	Marathi
360	Miss Florence Miles	20	Christian, Church of England.	Shikarpur	Florence, St. Patrick's School.	English
361	Balaji Hari Kalkarni	22	Brahmin	Wadewala	Elphinstone College.	Marathi
362	Khushroji Gurarse Kaghazi.	24	Brahmin	Kaighatgi	Poona Civil Engineering College.	Kanarese
363	Hari Ganesh Gokhale	20	Brahmin	Wai	Deccan College	Marathi
364	Balwant Bhaskar Chuhal	22	Parbhu	Poona	Deccan College	Marathi
365	Raghavendra Shrinivas Mirajkar.	22	Brahmin	Sangola	Deccan College	Marathi

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366	Bhaisal Rangvalad Modi	42	Vania	Nadiad	Surat Training School.	Gujarati
367	Narayan Balkrishna Bagve	33	Brahmin	Ratnagiri	Poona Training College.	Marathi
368	Govind Vaidyanath Thakur	36	Brahmin	Dhayari	Poona Training College.	Marathi
369	Motibhai Vallabhai Patel	35	Patidar	Nadiad	Elphinstone College.	Gujarati
370	Vithal Waman Gandhi	19	Brahmin	Dhulia	Dhulia High School.	Kanarese
371	Abdula Miya Sahab Syed	41	Mahomedan	Ahmedabad	Private tuition.	Urdu
372	Rangrava Narayan	42	Brahmin	Vinagre	Surat Normal Guzarati School.	

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	F.E.A., 1877.	1 10 17	Third Assistant, Navsarapur High School.	50 0 0	
English and Latin.	F.A., 1878.	1 7 26	Acting Fourth Assistant (M. S.), Ekbhaktone High School.	50 0 0	
English and Sanskrit.	B.A., 1878.	1 4 13	Acting Second Assistant (S.M.), Ekbhaktone High School.	50 0 0	On Grammar leave without pay.
Marathi and Gujarati.	None	0 11 0	Inspectress, Girls' Schools, Ekbhaktone.	80 0 0	Paid from Local Fund.
English and Sanskrit.	F.E.A., 1877.	0 10 15	Sub-proctor, Fifth Assistant, Kalaipur High School.	50 0 0	Paid from Kalaipur State.
English, Marathi and Sanskrit.	L.C.E., 1876.	0 8 20	Acting First Assistant, Kirwar English School.	75 0 0	
English and Sanskrit.	B.A., 1876.	0 4 16	Acting Second Assistant, Ratnagiri High School.	60 0 0	
English and Latin.	B.A., 1879.	0 4 7	Acting Second Assistant Master (M.S.), Ekbhaktone High school.	50 0 0	
English, Persian, Sanskrit, Kanarese, Hindustani, and Gujarati.	B.A., 1879.	0 3 5	Acting Assistant Persian Teacher, Ekbhaktone High School.	50 0 0	

and below Rs. 50.

A little of English.	Trained according to obligation	24 5 0	Head Master, Vernacular School, Kalra.	45 0 0	Local Fund.
A little of English and Sanskrit.	None	24 11 3	Head Master, Superior Vernacular School, Vimli.	45 0 0	From Local Funds.
English and Sanskrit.	Trained and certificated.	9 11 0	Head Master, 2nd Grade Anglo-Vernacular School, Jamnur.	40 0 0	
English and Sanskrit.	Matriculated 1878.	1 4 20	Head Master, Anglo-Vernacular School, Hallanpur.	45 0 0	From Hallanpur State.
English and a little of Sanskrit.	Matriculated 1881.	17 1 20	Head Master, Vernacular School, Wankal.	47 1 0	
English, Gujarati, Teacher, and Arabic.	None	15 0 20	Teacher of Urdu, Ahmedabad Training College.	45 0 0	
A little of English and Marathi.	None	24 0 0	Head Master, Vernacular School, Gadi.	45 0 0	Paid from Local Funds.

Sr.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
393	Gokhale Gopalrao	41	Vania ..	Surat	Surat High School.	Gujarati ..
394	Vaidyanath Raghavendra Khadi.	43	Brahmin ..	Belgaum ..	Urdu School ..	Kanarese ..
395	Bangi Vinayak Kale	39	Brahmin ..	Hubli	Urdu School ..	Kanarese ..
396	Ramchandra Jagannath Ghatia..	38	Vania ..	Dholera	Ahmedabad Training College.	Gujarati ..
397	Mahomedbhai Badruddin Akhund.	43	Mahomedan .	Khanata	Kumarsee Normal School.	Hindi ..
398	Sorabji Pestonji Batliwa ..	40	Parsi .. -	Bombay ..	Elphinstone College.	Gujarati ..
399	Vandravandas Umershankar Kothari.	41	Vania	Mahmudabad ..	Ahmedabad Training College.	Gujarati ..
400	Ramkrishna Khanderao Bakil.	40	Brahmin ..	Poona	Station Master School.	Marathi ..
401	Moro Dikshit Ghaiyatra ..	47	Brahmin ..	Gadadey	Poona Training College.	Marathi ..
402	Govind Keshavrao Phadnis ..	28	Brahmin ..	Kamthi	Poona Training College.	Marathi ..
403	Nagardas Harikhai Bakal ..	30	Vania	Kapadvanj ..	Ahmedabad Training College.	Gujarati ..
404	Mahadev Sitaram Kirtane ..	34	Brahmin ..	Rajpuri	Poona Training College.	Marathi ..
405	Chinto Ramkrishh Deshpande	27	Konni Brahmin	Ramchandrawad (Belgaum).	Belgaum High School.	Marathi ..
406	Ganesh Appaji Apte	28	Brahmin ..	Gokap	Poona Vernacular School.	Marathi ..
407	Balkrishna Narayan Gokhale ..	34	Brahmin ..	Poona	Poona High School.	Marathi ..
408	Bhikaji Khasgi Godbole ..	37	Brahmin ..	Wai	Poona School ..	Marathi ..
409	Devappa Narayan Koppikar ..	28	Brahmin ..	Honawar ..	Honawar School.	Canarese ..
410	Bhimshanker Kashiram Dave ..	34	Brahmin ..	Mahmudabad ..	Ahmedabad Normal Class.	Gujarati ..
411	Harikrishna Ramchandra Nadkarni.	40	Brahmin ..	Surat	Surat High School.	Gujarati ..

Other Languages known.	University standing, or Training College Certificate.	Period of Service in the department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	Y. m. d. 10	11	Rs. a. p. 12	13
English ..	None ..	23 4 19	Head Master, Vernacular School, Nander.	45 0 0	From Local Funds.
Marathi and a little of English.	None ..	23 9 0	Head Master, Anglo-Vernacular School, Athni.	45 0 0	
Marathi	None ..	23 2 0	Head Master, 2nd Grade School, Umrgal.	45 0 0	
None	3rd year, 1st Class Certificate, 1875.	20 5 6	Head Master, Lakki. Vernacular School.	45 0 0	From Vaidikwa Education Fund.
Persian and Urdu.	None ..	19 11 0	Head Master, Vernacular School, Hukpurwa.	45 0 0	From Local Fund.
English and Persian.	None ..	19 1 19	Third Assistant Master, Fort Branch School, Bombay.	45 0 0	
English	None ..	18 8 0	Head Master, Vernacular School, Sanand.	45 0 0	From Local Funds.
Gujarati	None ..	18 0 0	Third Clerk, Curator, Government Central Book Depôt, Bombay.	45 0 0	
None	Trained	18 9 29	Head Master, 2nd Grade Superior Vernacular School No. V., Poona.	45 0 0	
English	None ..	18 9 5	Head Master, Vernacular School, Pen.	45 0 0	
None	Trained according to old system) 1866.	18 7 5	Head Master, Vernacular School, Dhoolia.	45 0 0	Local Fund.
English ..	Trained ..	18 1 0	Head Master, Vernacular School, Alibag.	45 0 0	
Canarese and a little of English.	None ..	14 10 0	Accountant, Educational Inspector, Southern Division's Office, Belgaum.	45 0 0	
English	None ..	13 5 29	Deputy Educational Inspector, Phaltan State.	45 0 0	
English	None ..	13 2 1	Head Accountant, Educational Inspector, North-East Division.	45 0 0	
Sanskrit	None ..	13 2 0	Guru Kulya School, Singli	45 0 0	Paid from Singli State.
Canarese and English.	None ..	13 1 8	Head Master, Anglo-Vernacular School, Sirsi.	45 0 0	
None	None ..	13 1 7	Head Master, Vernacular School, No. I., Ahmedabad	45 0 0	From Local Funds.
English	None ..	12 11 14	Head Master, Vernacular School, Dakor.	45 0 0	From Local Fund.

No.	Name.	Age.	Caste or Religion.	Birthplace.	Where educated.	Vernacular.
1	2	3	4	5	6	7
411	Vishnu Appaji Dalke ..	45	Brahmin ..	Amala	Ratnagiri High School.	Marathi ..
412	Shridhar Mahadeo Kale ..	42	Brahmin ..	Ozhar (Chatali-gaon)	Ratnagiri High School.	Marathi ..
413	Motilal Jeshtar Mahalgaia ..	27	Vania	Ahmedabad ..	Ahmedabad High School.	Gujarati ..
414	Sorabji Manchorji Pandi ..	39	Parsi	Navsari	Navsari School.	Gujarati ..
415	Balvantrao Mahadevrao Mahate.	29	Brahmin ..	Surat	Surat High School and Elphinstone College.	Gujarati ..
417	Amalshai Hoshuzan Desai	29	Brahmin ..	Erwadi	Elphinstone College.	Gujarati ..
418	Thakorlal Nanabhai Mehta.	23	Shravak ..	Surat	Surat High and Middle Schools.	Gujarati ..
419	Khalifaval Khalifalal Advani.	26	Amil	Hyderabad ..	Hyderabad High School.	Sindhi ..
420	Jamshidji Dorabaji Pajora.	29	Parsi	Ahmedabad ..	Elphinstone College.	Gujarati ..
421	Ambalal Damodar Joshi ..	25	Brahmin ..	Kapadvanj ..	Elphinstone College.	Gujarati ..
422	Pashvanjee Girdharjee Dalal.	22	Parsi	Chavad	Elphinstone College.	Gujarati ..
423	Lakshmikar Abhayshanker Pandya.	24	Brahmin ..	Surat	Surat High School.	Gujarati ..
424	Waman Charya Talalikar ..	35	Brahmin ..	Kalalgi	Bombay College.	Kanarese ..
425	Ambalabai Sitaharlal Chokal ..	30	Vania	Surat	Surat High School.	Gujarati ..
426	Jahan Ratanji Lad	36	Kumbar ..	Kotargam ..	Surat English School.	Gujarati ..
427	Vishnuk Janardan Sovanikar.	29	Brahmin ..	Yeola	Poona Training College.	Marathi ..
428	Jeychand Asharam Parekh ..	40	Vania	Mehmadabad ..	Ahmedabad Training College.	Gujarati ..
429	Gopal Vishnuhwar Bhide ..	21	Brahmin ..	Baigaul ..	Poona Training College.	Marathi ..
430	Ramkrishna Sakharam Yadaya.	44	Brahmin ..	Khindesh ..	Jamsetji Marathi School.	Marathi ..
431	Chhotalal Hargovind Shah ..	27	Vania	Nadiad	Training School, Ahmedabad.	Gujarati ..
432	Mahadeva Anant Sohoni ..	27	Brahmin ..	Nasik	Poona Training College.	Marathi ..

Other Languages known.	University standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English and Sanskrit.	Matriculated 1867.	11 9 27	Fifth Assistant Master, Sátára High School.	45 0 0	On 3 months' leave on private affairs.
English ..	Matriculated 1866.	10 2 24	Eleventh Assistant Master, Poona High School.	35 0 0	
English and Sanskrit.	Matriculated 1865.	4 5 25	Head Master, 2nd Grade Anglo-Vernacular School, Dhárwár.	45 0 0	
English	Nonn ..	9 7 15	Teacher of Gymnastics, Ahmedabad High School and Training College.	40 0 0	
English and a little of Sanskrit.	Matriculated 1868.	9 0 14	Translator, Educational Department.	40 0 0	
English and Sanskrit.	Matriculated 1868.	8 7 1	Fourth Assistant Master, Broach High School.	45 0 0	
English and a little of Sanskrit.	Matriculated 1869.	7 7 6	Fifth Assistant Master, High School, Broach.	40 0 0	
English, Persian and Hindustani.	Matriculated 1873.	6 8 0	Fourth Assistant Master, High School, Sholápur.	45 0 0	
English and Sanskrit.	Matriculated 1870.	5 10 17	First Assistant, Branch School No. 1, Ahmedabad.	45 0 0	
English, Marathi, and Sanskrit.	Matriculated 1872.	4 11 10	First Assistant Master, 1st Grade Anglo-Vernacular School, Nasik.	45 0 0	
English and Sanskrit.	Matriculated 1875.	4 1 29	Fifth Assistant Master, Nadiad High School.	45 0 0	
English and Sanskrit.	Matriculated 1874.	4 4 7	Sub-Assistant, Fourth Assistant Master, Zoological High School.	45 0 0	From Cutchee Educational Trade.
Sanskrit	None ..	1 2 26	Second Assistant Sanskrit Teacher, Deccan College.	45 0 0	
English	None ..	11 1 12	Head Master, Chitalsarwadi School, Bombay.	45 14 6	
English	None ..	17 9 12	Head Master, 2nd Grade Anglo-Vernacular School, Nándedh.	42 12 7	From Kándesh State.
English	Trained ..	19 5 26	Head Master, Vernacular School, Malán.	47 5 9	
A little of English and Marathi.	Trained as a writing to subordinate Line.	21 2 0	Head Master, 2nd Grade Anglo-Vernacular School, Malwán.	42 7 0	From Local Funds.
English, Sanskrit and Khoorsee.	Training College Certificate of 1st class. No 25.	11 9 27	Head Master, Vernacular School, No. 11, Satára.	42 4 0	Do.
A little of English.	None ..	20 1 26	Head Master, Superior Vernacular School, No. 1, Ahmednr.	47 0 0	Do.
A little of English.	None ..	16 15 11	Head Master, Vernacular School, Thána.	45 0 0	Do.
English and a little of Sanskrit.	None ..	15 9 13	Head Master, Vernacular School, Násik, No. 4.	45 0 0	Do.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
432	Bhikar Moreshwar Bedse	36	Brahmin	Ozhernika	Poona Marathi School.	Marathi
433	Chaturbhuj Bhagvan Pandya	25	Brahmin	Mahudha	Ahmedabad Training College.	Gujarati
434	Shankar Balkrishna Dixit	35	Brahmin	Jhunjal	Poona Training College.	Marathi
435	Hari Vithal Pathak	43	Brahmin	Mangaon (Ratnagiri)	Poona Training College.	Marathi
437	Purushottamdas Atmaram Dalal	30	Vania	Bulsar	Surat Normal Class.	Gujarati
438	Khanderao Keshav Bhaskar Gadre.	37	Brahmin	Poona	Poona Training College.	Marathi
439	Trimbak Nagesh Shrotrekar	28	Brahmin	Sukhkrishna	Poona Training College.	Marathi
440	Ramchandra Ahaji Bapat	39	Brahmin	Adhwala	Poona Training College.	Marathi
441	Prabhakar Subhanji Bijapur	47	Maratha	Rabhavanur	Rabhavanur School.	Kanarese
442	Parvatishankar Dongarshankar Mahota.	32	Vania	Surat	Surat High School.	Gujarati
443	Shivarji Manekarji Vaidya	42	Parsi	Surat	Surat High School.	Gujarati
444	Narayan Chintaman Athavale	40	Brahmin	Gokhagar	Gokhagar School.	Marathi
445	Sevhalchand Vithaldas Shaha.	44	Vania	Ahmedabad	Ahmedabad High School.	Gujarati
446	Lalubhai Motiram Joni	44	Brahmin	Matar	Matar Vernacular School.	Gujarati
447	Shridhar Bapuji Pakanjar	37	Brahmin	Wai	Poona Patshala.	Marathi
448	Prabhu Dharman Tarwadi	40	Brahmin	Thasra	Ahmedabad Training College.	Gujarati
449	Ramchandra Krishnarao Joshi.	44	Brahmin	Anegal	Surat Training School.	Gujarati
450	Parmanan Mangaram Bavis	46	Brahmin	Ahmedabad	Ahmedabad High School.	Gujarati
451	Balaji Gangadhar Mandale	39	Brahmin	Kalyan	Poona Training College.	Marathi
452	Jethalal Purshottam Vyas	40	Brahmin	Nadiad	Ahmedabad High School.	Gujarati
453	Nagnath Ramchandra Shende	30	Brahmin	Pali	Patshala, Poona.	Marathi
454	Mahalaxmi Ratnajeb Bakal	29	Brahmin	Matar	Ahmedabad Training College.	Gujarati

Other Languages known	University Standing or Training College Certificate	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks
9	9	10	11	12	13
		Yr. m. d.		Rs. a. p.	
English	None	14 0 0	Head Master, 2nd Grade Anglo-Vernacular School, Chopda.	40 0 0	From Local Funds.
Persic	Second year 2nd Class Certificate.	7 10 4	Head Master, 2nd Grade Anglo-Vernacular School, Kalyan.	42 0 0	Do.
English and Sanskrit.	Matriculated 1874.	3 5 25	Head Master, Superior Vernacular School, Bordatek.	41 0 0	Do.
None	Training College Certificate.	20 3 10	Head Master, Sirdar School, No. II.	41 0 0	
None	Trained according to old system 1869.	17 10 17	Head Master, 2nd Grade Anglo-Vernacular School, Bhiwdi.	41 0 0	Do.
English	Training College Certificate.	14 11 29	Head Master, 2nd Grade School, Karad.	40 12 0	
English	Trained and certificated.	19 5 6	Head Master, Sajekar Vernacular School, Nargaon.	40 12 0	
English	Trained and certificated.	4 7 7	Head Master, Superior Vernacular School, Uran.	40 4 0	
Marathi ..	None ..	28 4 0	Head Master, Anglo-Vernacular school, Shirur.	40 0 0	
A little of English.	None ..	30 11 21	Head Master, Vernacular School, Broach.	40 0 0	
English ..	None ..	28 6 0	Second Assistant Master, Patel Tanlayat English School, Surat.	40 0 0	From Patel Pandharji Purbi.
None	None ..	24 6 0	Assistant Master, Training School, Kolhapur.	40 0 0	Paid from Kolhapur State.
English	None ..	22 6 29	Head Master, Vernacular School Vengurla.	40 0 0	From Local Funds.
A little of English, Sanskrit, and Marathi.	None ..	15 5 0	Head Master, Vernacular School, Wallivdi.	40 0 0	From Kolhapur Educational Funds.
English and Sanskrit.	None ..	25 2 12	Head Master, Ooing Vernacular School, Poona.	40 0 0	
None	None ..	23 10 2	Head Master, Vernacular School, Bopsid.	40 0 0	From Local Funds.
A little of English, Marathi, and Sanskrit.	None ..	18 9 10	Head Master, Vernacular School, Chalchil.	40 0 0	Paid from Local Funds.
English and Marathi.	None ..	22 7 14	Head Master, Vernacular School, Kirtya.	40 0 0	From Local Funds.
A little of English.	None ..	21 11 6	Head Master, 2nd Grade Anglo-Vernacular School, Flyda.	40 0 0	Do.
English, Marathi, and Sanskrit.	None ..	21 5 24	Head Master, Vernacular School, Sakra.	40 0 0	From Sakra Funds.
English, Sanskrit, Gujarkit, and Kanarese.	None ..	21 3 25	Sanskrit Tutor, Poona High School.	42 0 0	
A little of English and Sanskrit.	Trained according to old system 1869.	20 9 20	Head Master, Vernacular School, Malsi.	40 0 0	From Local Funds.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
466	Nandlal Shivlal Oza	44	Brahmin ..	Ahmedabad ..	Rajkot Normal Class.	Gujarati ..
467	Ganesh Ramchandra Bhide ..	44	Brahmin ..	Poona	Deccan College ..	Marathi ..
468	Keshavlal Premchand Parekh ..	42	Vania	Mahmudabad ..	Ahmedabad Training College.	Gujarati ..
469	Krishnaram Govindram Pandya.	42	Brahmin ..	Nadiad	Ahmedabad Training College.	Gujarati ..
470	Govind Vishnu Barve ..	40	Brahmin ..	Borwali	Poona Training College.	Marathi ..
471	Hari Bhaskar Damle	39	Brahmin ..	Ratnagiri ..	Poona Training College.	Marathi ..
472	Trimbak Krishna Patvardhan	37	Brahmin ..	Poona	Poona Training College.	Marathi ..
473	Narsinh Jetharam Kantawalla.	40	Vania	Surat	Elphinstone High school.	Gujarati ..
474	Vaijnath Narhar Joshi ..	41	Brahmin ..	Poona	Poona Training College.	Marathi ..
475	Jagannathshankar Jeyshankar Oza.	34	Brahmin ..	Bhavnagar ..	Rajkot Normal Class.	Gujarati ..
476	Ganesh Dattatraya Dongre ..	40	Brahmin ..	Chanda (Gadha giri).	Poona Training College.	Marathi ..
477	Pitambar Manekram Sukul ..	37	Bhojki	Parantij	Ahmedabad Training College.	Gujarati ..
478	Keshave Hari Abhyankar ..	32	Brahmin ..	Jnana (Dharwar)	Belgaum Training College.	Marathi ..
479	Partagji Nagarji Desai ..	36	Brahmin ..	Surat	Surat High School.	Gujarati ..
480	Gopalrao Abaji Raje	33	Purdesi ..	Thana	Poona College ..	Marathi ..
481	Antaji Trimbak Marathe ..	35	Brahmin ..	Nasik	Poona Training College.	Marathi ..
482	Keshaji Sadashiv Kelkar ..	37	Brahmin ..	Sangamner ..	Dhulia Training School.	Marathi ..
483	Govind Gopal Vaidyakar ..	36	Brahmin ..	Taoka	Poona High School.	Marathi ..
484	Mahadev Shivdas Bhave ..	39	Brahmin ..	Miraj	Poona Training College.	Marathi ..
485	Pandharinath Narayan Bolanee.	40	Brahmin ..	Pimer	Poona Training College.	Marathi ..
486	Keshav Ganpatrao Chitale ..	30	Brahmin ..	Chiplun	Poona Training College.	Marathi ..
487	Hormasji Khaji Kanga ..	33	Parsi	Navsari	Elphinstone High School.	Gujarati ..
488	Narayan Manohar Borgha ..	31	Brahmin ..	Ahmednagar ..	Poona Training College.	Marathi ..
489	Narsa Kalappa Mandiwar ..	35	Komati	Shivlapur ..	Shivlapur English School.	Telugu ..
490	Ramchandra Sakharam Kelkar.	35	Brahmin ..	Ratnagiri ..	A. V. English School.	Marathi ..

Other Languages known.	University standing or Training, without the Literate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. M. D.		Rs. a. p.	
None	None	20 1 6	Head Master, Vernacular School, Karvi.	40 0 0	From Satthada Educational Local Fund.
English and Hin. Journal.	None	20 2 13	Head Master, Vernacular School, Panvel.	40 0 0	
A little of English.	None	19 5 24	Head Master, Vernacular School, Mahalunkund.	40 0 0	Paid from local Funds.
None	None	19 2 0	Head Master, Vernacular School, Pachhal.	40 0 0	From Local Funds.
English and Hin.	None	19 1 11	Head Master, Vernacular School, Bori.	40 0 0	
English	None	18 9 14	First Assistant Master, Dhulia High School.	60 0 0	
English	None	18 6 21	Head Master, 2nd Grade Anglo-Vernacular School, Ismailia.	50 0 0	
English	None	18 0 0	Head Master, Sadhuvanbandi 2nd Grade Anglo-Vernacular School, Bombay.	40 0 0	
English	None	17 10 6	Head Master, Vernacular School, Chinchoni.	40 0 0	
None	None	17 7 7	Head Master, Vernacular School, Talaja.	40 0 0	From Kathiawar Educational Funds.
English	None	17 1 0	Head Master, Vernacular School, Khandi.	40 0 0	
None	None	16 9 0	Head Master, Vernacular School, Mangia.	40 0 0	Paid from Local Funds.
Kanarese	None	15 9 0	Head Master, Vernacular School, Kumpta.	40 0 0	
English	None	15 7 21	5th grade Pal Clerk, Educational Inspector, N. D.	40 0 0	
English	None	15 0 0	Second Assistant Master, Jamnath Sanskrit Anglo-Vernacular School, Bombay.	40 0 0	
English	Matriculated 1867.	15 0 0	Head Master, Superior Vernacular School, Nerlee.	40 0 0	From Local Funds.
A little of English.	None	15 1 21	Head Master, Vernacular School, Jalgaon.	40 0 0	Paid from Local Funds.
English	Matriculated 1866.	15 1 0	Fourth Assistant Master, Khali High School.	40 0 0	
English and Sanskrit.	None	15 1 0	Head Master, Superior Vernacular School No. 1, Poona.	40 0 0	
English	None	15 1 0	Head Master, Vernacular School, Mahali.	40 0 0	Do.
English	None	14 11 0	Head Master, Superior Vernacular School, Shahapur.	40 0 0	Do.
English	None	14 0 21	Fourth Assistant Master, First Branch School, Bombay.	40 0 0	
English	None	14 0 0	Head Master, Vernacular School, Thana, No. 1.	40 0 0	
English, Marathi and Urdu.	Matriculated 1874.	14 0 0	Third Assistant Master, English School, Shahapur.	40 0 0	
English	None	13 2 18	Fourth Clerk, Circular Book Depôt, Bombay.	40 0 0	

No.	Name	Age	Caste or Religion	Birth-place	Where educated	Vernacular
1	2	3	4	5	6	7
480	Sakharam Krishna Ambe	30	Brahmin	Ambavade	Poona High School.	Marathi
481	Pranjivan Damodarjee Desai	29	Brahmin	Olpad	Training School, Surat.	Gujarati
482	Lalubhai Govindram Tarwadi	35	Brahmin	Kapadvanj	Kapadvanj Vernacular School.	Gujarati
483	F. F. D'Souza	23	Christian	Bombay	Honorary School.	Konkani
484	Mumbaibaef Ameerbaef Peerkh.	37	Yavla	Kasara	Rajkot Normal Class.	Gujarati
485	Ganesh Ramji Digraskar	46	Brahmin	Digraj (Sangli)	Dhurwar Engl. ish School.	Marathi
486	Narsinha Vaijanath Gurav	41	Brahmin	Shrivardhan	Poona	Marathi
487	Gopal Shankar Vakte	23	Brahmin	Poona	Poona High School.	Marathi
488	Mahadeva Sakaram Kashikar.	19	Brahmin	Chiplun	Ratnagiri High School.	Marathi
489	Jagannath Jeevanjee Bhatt	20	Brahmin	Mota	Elphinstone High School.	Gujarati
490	Gopal Ramchandra Vaze	20	Brahmin	Gothagar	Ratnagiri High School.	Marathi
491	Shankar Balaji Vaidya	22	Brahmin	Bandora	Poona Training College.	Marathi
492	Kashiram Motiram Pandya	20	Brahmin	Kaira	Ahmedabad High School.	Gujarati
493	Anant Kashinath Oke	21	Brahmin	Poona	Poona High School.	Marathi
494	Jagannath Balkrishna Limaye.	21	Brahmin	Pen (Kolaba)	Elphinstone High School.	Marathi
495	Dhanshirbhai Joshi	21	Brahmin	Gokalia	Belgaum High School.	Kanarese
496	Narmada Dalsheram Joshi	27	Brahmin	Mehamdabad	Poona Civil Engineering College.	Gujarati
497	Mal Thal Bal valal Lalchand.	22	Hindu	Hyderabad	Private tuition	Sindhi
498	Chando Shrinivas Kapshikar.	22	Brahmin	Kagal	Kolhapur Training School.	Marathi
499	Vishnu Ganesham palvie	31	Good Brahmin	Saraswadi	Free Church Institution, Bombay.	Marathi
500	Maganlal Rambhaiya Vaila	20	Vania	Bidar	Ahmedabad Training College.	Gujarati
501	Manekji H. Kanga	20	Parsi	Bulsary	Elphinstone College	Gujarati

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English	None ..	14 0 6	Head Master, Superior Vernacular School, Savda.	40 0 0	Paid from Local Funds
English	None ..	14 0 0	Head Master, Sujitra Gujarati School, Baroda.	40 0 0	Paid from Baroda State.
None	None ..	13 8 26	Head Master, Vernacular School, Junagad.	40 0 0	Kathiawar Educational Fund.
English, Kannarese, and Portuguese.	None ..	13 5 0	First Assistant Master, 1st Grade School, Kumpta.	40 0 0	
None	None ..	13 4 0	Head Clerk, Deputy Educational Inspector, Kathiawar.	40 0 0	From Kathiawar Educational Funds
Kanarese and English.	None ..	12 8 0	Practising School Master, Training College, Dharwar.	40 0 0	
Sanskrit	None ..	11 8 0	Sanskrit Teacher, Ratnagiri High School.	40 0 0	Of this 5 years, 2 months and 16 days were spent in the Sawantwadi State.
English	None ..	11 7 6	First Clerk, Educational Inspector, Central Division's Office.	40 0 0	
English	Matriculated 1867.	11 3 0	Sixth Assistant Master, High School, Ratnagiri.	40 0 0	
English	None ..	11 2 25	Head Master, Bhendi School, Wadhwan.	40 0 0	From Kathiawar Educational Funds
English	Matriculated 1869.	11 1 25	Second Assistant Master, 1st Grade Anglo-Vernacular School, Kalyan.	40 0 0	
English	None ..	11 0 19	Head Master, Vernacular School, Dapoli.	40 0 0	From Local Funds.
English	Matriculated 1870.	10 3 0	Probationary Sixth Assistant, Kathiawar High School.	40 0 0	On leave.
English	Matriculated 1868.	10 3 18	Second Assistant Master, 1st Grade Anglo-Vernacular School, Ahmednagar.	40 0 0	
English	Matriculated 1869.	10 3 29	First Assistant, Elphinstone 1st Grade Anglo-Vernacular School, Bombay.	40 0 0	
English and Marathi.	None ..	10 2 0	Head Master, Anglo-Vernacular School, Satara.	40 0 0	
English	None ..	9 8 19	Teacher of Drawing, Ahmedabad Training College.	40 0 0	
Sanskrit and Gujarathi.	None ..	8 11 21	Head Mistress, Girls' School, Karachee.	40 0 0	From Local Funds
A little of Sanskrit.	None ..	8 10 0	Head Master, Marathi School No. 1, Miraj.	40 0 0	Paid from Miraj State.
English	None ..	8 10 0	Fifth Clerk, Crawter Government Central Book Depôt, Bombay.	40 0 0	
English and Hindi of Sanskrit.	Trained according to old system, 1866.	8 8 29	Head Master, Vernacular School, Kalali.	40 0 0	From Local Fund.
English and Persian.	Matriculated 1865.	8 7 7	Third Assistant, Gokuldas Tejpal School, Bombay.	40 0 0	

No.	Name.	Age.	Caste or Religion	Birth-place.	Where situated.	Vernacular.
1	2	3	4	5	6	7
302	Ganesh Hari Bakshikar ..	37	Brahmin ..	Rahuri	Private tuition ..	Marathi ..
303	Nanabhai Amarsi Shah ..	39	Vania ..	Porbandar	Ahmedabad Training College.	Gujarati ..
304	Narhar Gangadhar Sanjgiri ..	39	Deccan Brahmin	Harnai (Goa) ..	Bombay Money Institution.	Marathi ..
305	Parbhulal Umiyram Pandya ..	39	Brahmin ..	Mahudha ..	Ahmedabad Training College.	Gujarati ..
306	Narsinhdas Tribhovandas Shaparia.	29	Bhatia ..	Kutchi	Hyderabad High School.	Punjabi ..
307	Vishnu Sadashiv Malekar ..	30	Brahmin ..	Kolhapur ..	Poona Civil Engineering College.	Marathi ..
308	Kashinath Govind Kanvar Kar.	29	Brahmin ..	Manjalvedha ..	Deccan College ..	Marathi ..
309	Sorabji Tamaji Bhadaji ..	31	Brahmin ..	Miraj	Kolhapur High School.	Marathi ..
310	Khurshedji Jamshedji Mather ..	39	Parsi ..	Bombay	Sir J. J. Parsi Educational Institution.	Gujarati ..
311	Motilal Jankidhanal Malaviya.	19	Vania ..	Ahmedabad ..	Ahmedabad High School.	Gujarati ..
312	Khubchand Pahumal Kirpalani.	28	Amil ..	Hyderabad ..	Karachee High School.	Sindhi ..
313	Jahashankar Gokulji Jhala ..	26	Brahmin ..	Dhrole	Kathiawar High School.	Gujarati ..
314	Premchand Karamchand Bhatia.	23	Vania ..	Amritsir	Ahmedabad Training College.	Gujarati ..
315	Ramkrishna Balal Barli Kar.	27	Brahmin ..	Ratnagiri ..	Private tuition	Marathi ..
316	Tarbadasad Vishram Gokhle ..	26	Brahmin ..	Mota	Elphinstone High School.	Gujarati ..
317	Mahomed Virji Patel ..	27	Mahomedan ..	Bombay	Elphinstone College.	Gujarati ..
318	Hargovind Meghraj Gandhi ..	29	Hindu Bhatia	Delmi ..	Sirkaryar High School.	Sindhi ..
319	Vishvanath Hargovindas Mehta.	21	Brahmin ..	Bhavnagar ..	Bhavnagar High School.	Gujarati ..
320	Manekbhai Pranjivan Patel.	21	Brahmin ..	Mota	Elphinstone College.	Gujarati ..
321	Vishvanath Gopalji Pandya ..	23	Brahmin ..	Vaso (Kaira) ..	Ahmedabad Training College.	Gujarati ..

Other Languages known.	University standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
Sanskrit and a little of English.	Some	8 0 22	Sanskrit Teacher, Rajaram High school, Kolhapur.	60 0 0	Paid from the Kolhapur State
A little of English.	None	7 4 20	Head Master, Prathmik School, Ahmedabad.	40 0 0	From Local Fund
English	Matriculated	7 7 27	Head Master, 2nd Grade Anglo-Vernacular School, Khetwadi.	40 0 0	
A little of Sanskrit.	None	7 7 5	Third Assistant Master, Training College, Ahmedabad.	40 0 0	
English, Persian, Hindi, Hindustani and Marwadi.	Matriculated 1871.	7 2 29	Head Master, Anglo-Vernacular School, Jamkhandi.	50 0 0	Paid From Local Fund.
English	F.C.E., 1871	6 11 15	Writing and Drawing Master, High School, Poona.	40 0 0	
English and Sanskrit.	Matriculated 1869.	6 9 1	First Assistant Master, 1st Grade Anglo Vernacular School, Surat.	40 0 0	
English, Sanskrit and Kanarese.	Matriculated 1872.	5 0 27	Head Master, Anglo-Vernacular School, Kaira.	50 0 0	Paid from the Kolhapur State
English	Matriculated 1872.	5 10 29	First Assistant, Cumballawall School, Bombay.	40 0 0	
English	Matriculated 1873.	5 7 6	Fourth Assistant, Navanagar High School.	35 0 0	Paid from Kathiawar Private Schools Fund.
English, Persian and Hindustani.	Matriculated 1872.	5 6 1	Fifth Assistant Master, High School, Shikarpur.	40 0 0	
English	Matriculated 1873.	5 3 25	Sub. pro tem. Sixth Assistant Master, Kolhapur High School.	35 0 0	From Kathiawar Education Funds.
A little of Sanskrit.	None	4 10 7	Second Assistant Master, Training College, Rajkot.	40 0 0	
Gujarati	None	4 8 0	Native Accountant, Current Government Central Book Depôt, Bombay.	50 0 0	
English	None	4 6 14	Sub. pro tem. Eighth Assistant, Kolhapur High School, Rs. 30 Accountant ... 70	45 0 0 60 0 0	Paid from Kathiawar Private Schools Fund.
English, Hindustani, Gujarati and Persian.	Matriculated 1870.	4 2 11	Assistant Master, Anglo-Hindustani Branch, Camp School, Poona.	60 0 0	
English and Persian.	Matriculated 1868.	3 9 2	Second Assistant, Anglo-Vernacular School, Sirkhin, and Sub. pro tem. Head Master, Anglo-Vernacular School, Thana Zilla.	45 0 0	Paid from Local Fund.
English and Sanskrit.	Matriculated 1873.	3 7 9	First Assistant, Anglo-Vernacular School, Bhavnagar.	35 0 0	From Kathiawar Educational Funds. On 1st trial.
English, Sanskrit and a little of Marathi.	Matriculated 1873.	2 9 1	Sub pro tem. Fifth Assistant Master, Kolhapur High School.	40 0 0	
None	2nd year Std. Class Certificate, 1876.	2 9 3	Head Master, Vernacular School, Khambhaliya.	40 0 0	Kathiawar State Official Fund.

No.	Name	Age.	Caste or Religion.	Birth-place	Where educated	Vernacular
1	2	3	4	5	6	7
307	Jethabhai Mangaldas	21	Hindu	Vyrákh	Ahmedabad Training Dep.	Gujarati
308	Jaisinghbhai Pitambar Adhiji.	21	Vánia	Surat	Elphinstone College.	Gujarati
309	Hormasji Pestanji Talati	21	Parsi	Surat	Elphinstone High School.	Gujarati
310	Vinayak Balvant Chaskar	24	Brahmin	Dhulia	Deccan College	Marathi
311	Hari Ramchandra Pavaskar.	22	Brahmin	Ratnágiri	Elphinstone College.	Marathi
312	Ganesh Krishna Joshi	22	Brahmin	Ratnágiri	Elphinstone College.	Marathi
313	Narayan Atmaram Rangnekar.	24	Brahmin	Ratnágiri	Elphinstone College.	Marathi
314	Ramrao Hebalrao Kailayanpur.	21	Sarasvat	Mangalore	Mangalore School.	Kanarese
315	Dattatrishna Ramchandra Sane.	22	Brahmin	Ratnágiri	Elphinstone College.	Marathi
316	Vasudev Vinayak Chatre	22	Brahmin	Poona	Deccan College	Marathi
317	Shivaram Sukharam Khare	19	Brahmin	Poona	Poona Training College.	Marathi
318	Waman Ramchandra Londhe	20	Brahmin	Nagpur	Poona Training College.	Marathi
319	Keshav Vishvanath Bhagwat.	25	Brahmin	Sátára	Poona Training College.	Marathi
320	Ismailmal Dhanchand Lalvani.	22	Amil	Hyderabad, Sind	High School, Hyderabad.	Sindhi
321	Gopal Waman Bedekar	20	Brahmin	Poona	Poona Training College.	Marathi
322	Govind Mahadeva Pandalik	29	Brahmin	Jalalpur (Nagpur)	Government Vernacular School, Yeola.	Marathi
323	Hari Lakshman Khare	24	Brahmin	Dahánú	Dahánú School	Parsi
324	Sadashiva Ramchandra Limaye.	18	Brahmin	Poona	Poona Training College.	Marathi
325	Shivalingbhat Laxmikram	20	Brahmin	Dharwar	Belgaum Normal Class.	Canarese
326	Govind Vinayak Khare	20	Brahmin	Shivapur (Deccan)	Poona Training College.	Marathi
327	Narhar Sadashiv Malajan	24	Telug	Poona	Sátára English School.	Marathi
328	Bhaskarbhatta Hari Belure	21	Brahmin	Poona	Poona Training College.	Marathi
329	Mahadeo Vinayak Shikhare	20	Brahmin	Junnar (Poona)	Poona Training College.	Marathi
330	Antaji Gokuldas Bandi	20	Brahmin	Sátára	Poona Training College.	Marathi
331	Laxman Rajaram Limaye	20	Brahmin	Ratnágiri	Poona Training College.	Marathi

Other Languages known.	University standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. M. D.		Rs. A. P.	
None	None ..	2 2 11	Head Master, Vernacular School, Betul.	40 0 0	Paid from Zilla Local Funds.
English and Sanskrit.	Matriculated, 1873.	1 7 17	Sub. pro-tem. Fifth Assistant Master, Kolhapur High School.	40 0 0	Do.
English, Latin, and Sanskrit.	Matriculated, 1877.	1 4 24	Acting Sixth Assistant Master, S. J. High School, Karachee.	40 0 0	
English and Sanskrit.	F.E.A. ..	1 4 0	Fourth Assistant Master, Ahmednagar High School.	45 0 0	
English and Sanskrit.	F.E.A. ..	1 2 19	Acting Thirteenth Assistant Master, High School, Poona.	40 0 0	Leave without pay for 2 months.
English and Sanskrit.	F.E.A., 1875.	1 1 19	Sub. pro-tem. Sixth Assistant Master, High School, Satara.	40 0 0	
Sanskrit and English.	F.E.A., 1878.	0 7 0	First Assistant, Shivajeerâll English School.	40 0 0	Paid from Shivajeerâll Shale.
Canarese, Marathi and English.	F.E.A., Madras, 1874.	0 4 11	Sub. pro-tem. Fourth Assistant, Belgaum High School.	40 0 0	
English and Latin.	F.A., 1879 ..	0 3 5	Sub. pro-tem. Twelfth Assistant, Poona High School.	40 0 0	
English and Sanskrit.	Matriculated.	0 0 27	Sub. pro-tem. Thirteenth Assistant, Poona High School.	40 0 0	
Sanskrit ..	Trained ..	23 0 27	Head Master, Vernacular School No. III, Poona.	70 0 0	
English	Trained ..	10 5 14	Head Master, Vernacular School, Pabna.	50 0 0	
English	Trained and certificated.	14 11 10	Head Master, Vernacular School, Indapur.	70 0 0	
English and Persian.	Matriculated, 1874.	4 4 13	Acting Seventh Assist. Master, Hyderabad High School.	80 0 0	Permanent Incumbent, Mr. Parbatrai.
English	Training College Certificate.	15 1 0	Head Master Second Grade School, Wai, No. I.	75 0 0	
None	None ..	27 5 20	Head Master, Superior Vernacular School, No. 1, Sagar.	70 0 0	From Local Fund.
English	Trained ..	22 4 16	Head Master, Vernacular School, Kalyan.	60 0 0	Do.
A little of English.	None ..	22 0 0	Head Master, Superior Vernacular School, No. 1, Nasirabad.	70 0 0	
None	None ..	19 10 24	Head Master, Vernacular School, Dharangaon.	45 0 0	Paid from Zilla Local Funds.
English	None ..	19 4 21	Head Master, Superior Vernacular School, Sangamner.	50 0 0	From Local Funds.
English and Gujarati.	None ..	18 9 16	Acting Fourth Assistant, English School, Thana.	70 0 0	
A little of English.	None ..	16 5 0	Head Master, Superior Vernacular School, Dharangaon.	50 0 0	Do.
A little of English.	None ..	16 3 18	Head Master, Superior Vernacular School, Sadrat.	45 0 0	Do.
English and Sanskrit.	None ..	13 3 7	Head Master, Vernacular School, Kolhapur.	50 0 0	
English	None ..	12 10 25	Head Master, Anglo-Vernacular School, Pachaura No. 1.	50 0 0	

No.	Name	Age	Caste or Religion	Birth-place	Where educated	Vernacular
1	2	3	4	5	6	7
547	Vishnoo Sayaji Tile	30	Shimpi	Poona	Poona Training College.	Marathi
548	Moro Bhikaji Bakil	28	Brahmin	Hivara	Poona Training College.	Marathi
549	Vithaldas Ranchhoor Desai	35	Vania	Kapadvanj	Ahmedabad Training College.	Gujarati
550	Umeeram Kirparam Bhat	25	Brahmin	Jetalpur	Ahmedabad Training College.	Gujarati
551	Kaginbai Mahomed	44	Vania	Surat	Surat High School.	Gujarati
552	Dhagadhi Bakhshooker Pirbhai.	44	Brahmin	Ahmedabad	Ahmedabad Normal Class.	Gujarati
553	Hargovind Shivshankar Terakh.	35	Brahmin	Kapadvanj	Kapadvanj Vernacular School.	Gujarati
554	Balkrishna Mahadeo Kulgaonkar.	45	Brahmin	Kolgaon	Poona Training College.	Marathi
555	Ramchandra Parshuram Ghoorkar.	37	Brahmin	Sátára	Poona Training College.	Marathi
556	Chinto Ghorabe Narayan	44	Brahmin	Bassegaon	Dharwar School	Marathi
557	Jesunkerkar Premshankar Vijas.	46	Brahmin	Surat	Surat Normal Class.	Gujarati
558	Hargovindas Rajaram Terakh.	32	Vania	Sidsir	Sidsir Vernacular School.	Gujarati
559	Dhanchhod Kalandas Seth	39	Vania	Chikli	Surat Training School.	Gujarati
560	Ramanna Dayanand Gawgal	21	Hindu	Bidar	Hyderabad Normal School.	Sindhi
561	Motichand Vasanji Desai	22	Vania	Jhalia	Rajkot Training School.	Gujarati
562	Purshram Shankarji Raval	22	Brahmin	Kunthariya	Rajkot Training School.	Gujarati
563	Balaji Anant Godbole	54	Brahmin	Wai	Poona Pathshala.	Marathi
564	Chimaloo Chintaman Wabekar	45	Brahmin	Poona	Poona School	Marathi
565	Ramchandra Balaji Jagirkar	44	Brahmin	Patal	Religious School	Marathi
566	Sakharam Bapuji Dandekar	40	Sonar	Ratnagiri	Khed School	Marathi
567	Gangaram Hirji	45	Brahmin	Kapadvanj	Kapadvanj Vernacular School	Gujarati
568	Sadasiv Bhavsan Gokhale	40	Brahmin	Belgaum	Dharwar Normal School.	Marathi
569	Abdul Rasul Mahomed Saleh Ahmednuggur.	42	Mahomedan East.	Nizamshahi	Nizamshahi Private School.	Sindhi
570	Girdhar Bakaba Jani	41	Brahmin	Morvi	Rajkot Vernacular School.	Gujarati

Other Language known.	University Standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
None	Training College Certificate.	15 0 20	Head Master, Vernacular School, Bahadurpur.	37 12 0	
None	Trained and certificated.	12 4 21	Head Master, Vernacular School, Kheda.	37 12 0	
A little of English.	Trained according to old system 1882.	17 7 16	Head Master, Vernacular School, Kapadvanj	37 1 0	From Local Fund.
None	2nd year 1st Class Certificate.	2 10 19	Head Master, Vernacular School, Gholkari.	37 1 0	Do.
English ..	None	20 7 5	Head Master, Vernacular School No. VII., Surat.	37 0 0	Do.
None	None ..	13 2 0	Head Master, Vernacular School No. VI., Ahmedabad.	37 0 0	Do.
None	None ..	16 10 0	Head Master, Vernacular School, Edar.	37 0 0	From Edar State.
None	Training College Certificate.	23 1 0	Head Master, Vernacular School, Mahsur.	36 12 0	
English	None ..	11 1 28	Head Master, Vernacular School, Dabhoi.	36 11 0	
Kannarese ..	None ..	16 9 11	Head Master, Marathi School No. I., Belgaum.	36 0 0	
English	Trained according to old system.	21 4 0	Head Master, Vernacular School No. VI., Surat.	36 0 0	From Local Fund.
A little of English.	None ..	19 0 0	Head Master, Vernacular School, Bodeli.	36 0 0	Do.
None	Trained according to old system 1883.	11 0 20	Head Master, Vernacular School, Kadod.	36 0 0	Do.
Persian and Urdu.	None ..	9 7 0	Head Master, Vernacular School, Bhirda.	36 0 0	
None	2nd year 1st Class Certificate.	7 2 0	Head Master, Vernacular School, Kundla.	36 0 0	Kathiawar Educational Funds.
None	2nd year 1st Class Certificate.	6 0 10	Head Master, Vernacular School, Lakhtar.	36 0 0	Do.
Sanskrit		20 13 0	Marathi Clerk to the Deputy Educational Inspector, Poona.	35 0 0	
None		29 5 18	Master, Patni Girls' ..	32 0 0	
None		26 1 0	Head Master, Superior Vernacular School No. II., Poona.	32 0 0	From Local Funds.
None	None ..	25 9 0	Head Master, Vernacular School, Thana, No. II.	32 0 0	
None	None ..	29 0 18	Head Master, Vernacular School, Sajod.	32 0 0	Paid from Kathiawar Educational Funds.
Kannarese ..	None ..	22 10 28	Head Master, Marathi School, Kalol.	32 0 0	From Local Funds.
Arabic, Persian, and Urdu ..	None ..	23 9 19	Head Master, Vernacular School, Nandoles.	32 0 0	From Kathiawar Educational Funds.
A little of English.	None ..	21 11 25	Head Master, Vernacular School, Dabhadhi.	32 0 0	Kathiawar Educational Funds.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
871	Rachunath Lachman Joshi ..	43	Brahmin ..	Khed (Poona) ..	Poona Training College.	Marathi
872	Lallbhai Jethabhai	43	Khatrus ..	Chalan	Chalan Vernacular School.	Gujarati ..
873	Anandlal Mulshankar Gandhi.	41	Vania	Mahmadabad ..	Ahmedabad Training College.	Gujarati ..
874	Balaji Shankar Bapat ..	39	Brahman ..	Pilan	Poona Training College.	Marathi ..
875	Ganesh Bhikrishna Pasalkar.	32	Brahmin ..	Kolhapur ..	Kolhapur English School.	Marathi ..
876	Rashinath Narayan Kelatkar.	40	Brahmin ..	Poona	Poona School ..	Marathi
877	Sadashiva Mureshwar Divekhar.	37	Brahmin ..	Godhra	Godhra Sub Grade Anglo-Vernacular School.	Marathi ..
878	Narberam Bhagjibhai Pandya.	43	Brahmin ..	Surat	Surat High School.	Gujarati ..
879	Balwant Wamdeo Joglekar ..	39	Brahmin ..	Mahad	Mahad Vernacular School.	Marathi ..
880	Francis Rebello	34	Christian ..	Thana	Thana English School.	Portuguese
881	Hafiz Mahomed Ramzan Rahimkhan Kazi.	35	Mahomedan ..	Sukkur Patan ..	Sukkur Normal School.	Sindhi ..
882	Ramchandra Annaji Dixit ..	37	Brahmin ..	Kaladgi	Bangoli School ..	Canarese
883	Narayan Ramrao Vyas ..	37	Brahmin ..	Mitar	Ahmedabad Training College.	Gujarati ..
884	Balkrishna Hari Humphry ..	44	Shenvi ..	Vengurla ..	Vengurla School	Marathi ..
885	Khaji Barjorji Patel	23	Parsi	Surat	Surat High School and Parsi Panchayat School, Surat.	Gujarati ..
886	Balkrishna Manorkrao Tarvadi.	35	Brahmin ..	Wadakeve ..	Ahmedabad Training College.	Gujarati ..
887	Narayan Dhondeo Joshi ..	37	Brahmin ..	Poona	Poona Training College.	Marathi ..
888	Keshav Ganesh Karmarkar ..	36	Brahmin ..	Sangli	Poona Training College.	Marathi ..
889	Hari Mahadeo Vellankar ..	45	Brahmin ..	Sangameser ..	Free General Assembly's Institution, Bombay.	Marathi ..
890	Basvanklappa Dundappa ..	22	Lingayat ..	Bankapur ..	Belgaum Training College.	Kanarese ..
891	Govind Ganesh Joshi ..	40	Brahmin ..	Poona	Poona Mission School.	Marathi ..
892	Vinayak Parashram Datar ..	35	Brahmin ..	Lakshmeshwar ..	Dharwar English School.	Marathi ..
893	Dhulo Vaidya Jakotdar ..	36	Marathi ..	Dhulia	Dhulia High School.	Marathi ..

Other Languages known.	University Standing, or Training College Certificate	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
A little of English.	None ..	20 6 0	Head Master, Superior Vernacular School, Shirpur.	35 0 0	From Local Funds.
None	None ..	12 11 0	Head Master, Vernacular School, Chikra.	24 0 0	Paid from Sakhkari Educational Funds.
None	Trained according to old system.	19 4 0	Head Master, Vernacular School, Pilnli.	30 0 0	From Local Funds.
English	None ..	19 0 15	Head Master, Vernacular School, Dahisl.	27 0 0	Do.
English		18 0 20	Assistant Master, Talukas High School, Kolhapur.	32 0 0	Paid from Kolhapur State.
Gujarati ..	None ..	18 6 12	Head Master, Vernacular School, Dahivadi.	26 0 0	
English and Urdu	None ..	18 5 14	Head Clerk, Assistant Deputy Inspector, Purch Mahals and Rewa Kantha.	30 0 0	Rs. 5 from Rewa Kantha Educational Funds.
English and a little Marathi.	None ..	18 5 6	Fourth Clerk, Educational Inspector, N.D.	20 0 0	
None	None ..	18 5 4	Head Master, Sátára School, No. 1.	35 0 0	
English and Marathi.	None ..	18 0 21	Head Master, Thána Portuguese School.	35 0 0	
Arabic, Persian, Hindustani and Punjabi.	None ..	18 0 15	First Assistant Master, Anglo-Vernacular School, Lahóre.	35 0 0	Paid from Local Fund.
Marathi	None ..	18 5 5	Head Master, Khasgi School, Phaltan.	45 0 0	
A little of English and Sanskrit.	None ..	18 0 11	Head Master, Vernacular School, Mahoba.	30 0 0	From Local Funds.
English	None ..	18 0 8	Head Master, 2nd Grade Anglo-Vernacular School, Talegaon Dhábháda.	35 0 0	Do.
English	None ..	18 0 0	Third Assistant Master, Branch School, No. 1, Surat.	30 0 0	
English and a little of Sanskrit.	None ..	17 5 20	First Assistant Master, Gujarati School, No. 1., Baroda.	45 0 0	Paid Baroda State.
English and Sanskrit.	None ..	17 1 4	Third Assistant Master, Poona Training College.	35 0 0	..
English	None ..	17 1 0	Head Master, 2nd Grade Anglo-Vernacular School, Vita, No. 1.	28 0 0	
English	None ..	17 0 0	Third Assistant Master, Jagannath Sankarsett 1st Grade Anglo-Vernacular School, Bombay.	35 0 0	
Marathi	None ..	14 6 0	Head Master, Vernacular School, Sangamner.	20 0 0	
English	None ..	14 0 2	Head Master, Superior Vernacular School, Kampta.	35 0 0	From Local Funds.
English and Sanskrit ..	None ..	13 9 0	Fifth Assistant, Dhárwár High School.	25 0 0	
English	None ..	12 3 3	First Clerk, Educational Inspector, N. D.	30 0 0	Do.

No.	Name.	Age.	Caste or Religion.	Birthplace.	Where educated.	Vernacular.
1	2	3	4	5	6	7
604	Mangesh Krishnaji Ramchandani.	27	Hindu Amil	Hyderabad	Hyderabad Normal School.	Sindhi
605	Vakhatsinh Harisinh Mathotha.	22	Vania	Broach	Broach High School and Gokuldas School, Bombay	Gujarati
606	Premjivan Tulsidas Sakai	21	Brahmin	Mandvi	Surat Training School	Gujarati
607	Tirathdas Kimatrai Sachrangani	20	Hindu Amil	Hyderabad	Hyderabad High School	Sindhi
608	Kanchanlal Saraya Patel	42	Parbhu	Kolhapur	Kolhapur School and Library Institution, Bombay.	Marathi
609	Pragji Narayan Desai	20	Brahmin	Dahisar	Dahisar English School	Gujarati
610	Kapurchand Mulchand Pervala.	22	Vania	Amod	Surat High School	Gujarati
611	Venkatramanacharya Narayanacharya.	45	Brahmin	Mirkatal, Sangli	Poona Sanskrit College.	Kanarese
612	Ganesh Balwant Limaye	20	Brahmin	Satara	Poona Training College.	Marathi
613	Vishwanath Chintaman Gore	43	Brahmin	Poona	Poona High School.	Marathi
614	Chaganlal Bhikhanji Tarwadi	27	Brahmin	Wadasinor	Ahmedabad Training College.	Gujarati
615	Anant Vishwanath Chaine	31	Brahmin	Miraj	Miraj and Satara Schools.	Marathi
616	Balaji Sheidar Sahasrabudhe	29	Brahmin	Satara	Satara English School and Poona High School.	Marathi
617	Ainaram Moreshwar Thakur.	32	Brahmin	Mansoolve	Ratnagiri School.	Marathi
618	Ramchandra Balkrishna School.	31	Brahmin	Poona	Poona & Dhulia Schools. High	Marathi
619	Vishnu Raghunath Tatkar	25	Brahmin	Ratnagiri	Ratnagiri High School.	Marathi
620	Gopal Dattoobar Sahasrabudhe	27	Brahmin	Poona	Poona High School.	Marathi
621	Bhagwandas Brijbhukandas Gandhi.	20	Vania	Surat	Surat High School, Elphinstone College & Dr. Wilson's Institution.	Gujarati
622	Vinayak Anant Bapat	20	Brahmin	Poona	Deccan College	Marathi
623	Govindshankar Prabhashankar.	24	Brahmin	Kida-Ghal	Ahmedabad Gujarathi School	Gujarati
624	Jamshedji Bhagvandas Pusa.	29	Vania	Viramgam	Ahmedabad High school	Gujarati
625	Ganesh Shankar Dravid	25	Brahmin	Kolhapur	Kolhapur High School	Kanarese

Other Languages known.	University, Standing or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
Persian	None	12 6 6	Head Master, Vernacular School, Tando Alahyar.	35 0 0	Paid from Local Fund.
English	None	12 10 16	Head Master, Gujarati School, Kadi.	50 0 0	From Baroda State.
None	Trained according to old system, 1868.	12 10 0	Head Master, Vernacular School, Vihol.	35 0 0	From Local Funds.
English, Persian and Hindustani.	None	12 9 6	Head Master, Anglo-Vernacular school, Kolri.	50 0 0	
English	None	12 4 2	Head Master, Anglo-Vernacular School, Kolhapur.	65 0 0	From Kolhapur State.
English	None	12 4 6	Head Master, Gujarati School, Vaitaj-ur.	35 0 0	From Baroda State.
English	None	12 3 8	Sub-pro-tem Fourth Circle Educational Inspector, N. D.	55 0 0	
Sanskrit and Marathi.	None	11 6 4	Guru Vyakarna School, Sangli.	50 0 0	Paid from Sangli State.
English	None	11 6 0	Head Master, Superior Vernacular School, Shahapur.	35 0 0	From Local Funds.
English	None	11 7 0	Second Clerk, Educational Inspector, Central Division's Office.	35 0 0	
English, and a little of Sanskrit.	None	11 2 11	Head Master, Vernacular School, Dehlad.	35 0 0	
Kannarese and Sanskrit.	None	11 1 23	Sanskrit Teacher, Belgaum High School.	35 0 0	
English and a little of Sanskrit.	Matriculated 1867.	11 1 0	Sixth Assistant Master, Satara High School.	30 0 0	On leave allowance pay for one year.
English	Matriculated 1868.	10 9 17	Seventh Assistant Master, Satara High School.	25 0 0	
English	Matriculated 1869.	10 6 25	First Assistant, 1st Grade Anglo-Vernacular School, Panchgani.	70 0 0	
English and Sanskrit.	Matriculated 1869.	9 7 17	Second Assistant, Sevasadan English School.	75 0 0	Paid from Sangli State.
English	Matriculated	9 5 0	English Teacher, 2nd Grade Anglo-Vernacular School, Junnar.	30 0 0	
English and Latin.	Matriculated 1868.	8 6 25	First Assistant Master, 1st Grade Anglo-Vernacular School, Camp Poona.	85 0 0	
English and Latin.	Matriculated 1868.	7 9 0	Fourteenth Assistant Master, High School, Poona.	35 0 0	
English	None	6 5 26	Head Master, Baroda Gujarati School No. II.	50 0 0	Paid from Baroda State.
English	Matriculated 1870.	6 0 1	First Assistant Master, 1st Grade Anglo-Vernacular School, Virangaon.	35 0 0	
English and Sanskrit.	Matriculated 1871.	5 3 17	Ninth Assistant Master, Rajaram High School, Kolhapur.	25 0 0	From Kolhapur State.

No.	Name	Age	Caste or Religion.	Birth-place.	Were educated.	Vernacular.
1	2	3	4	5	6	7
616	Dalsukram Priyashankar Shastri.	29	Vania	Jabal in Kheda dath.	Surat High School.	Gujarati
617	Bhikji Jamshedji Mistri	25	Parsi	Bombay	Elphinstone College.	Gujarati
618	Bapat Sakharam	32	Brahmin	Dapuri	Gujarati School Dapuri.	Marathi
619	Mohammad Moinuddin Mamlukat.	21	Hindu Amil	Hyderabad	Hyderabad High School.	Sindhi
620	Thakordas Narsimadas Dalal.	20	Vania	Surat	Surat High School.	Gujarati
621	Sayad Yakub Sayad Mahdu	19	Muhammadan	Miraj	Miraj	Persian
622	Balkrishna Mahadev Patwardhan.	20	Brahmin	Poona	Poona High School.	Marathi
623	Dayaram Nanabhai Mehta.	20	Kapad	Surat	Surat High School.	Gujarati
624	Parmanand Mahand Udyati	17	Brahmin	Udyati (Dharwar)	Dharwar High School.	Kanarese
625	Vandrawandas Sakharam Vaidya.	20	Brahmin	Chorwad	Rajkot High School.	Gujarati
626	Ramchandra Dhondev Mahajan.	21	Brahmin	Sangor	Kolhapur High School.	Marathi
627	Gopalji Narayan Majumdar	20	Brahmin	Bombay	Bombay High School.	Marathi
628	Ahmad Ibrahim Pradhan Desai.	17	Brahmin	Harpur (Kanara dist.)	Kolhapur	Marathi
629	Khimji Trikamdas	20	Lavana	Lunawada	Elphinstone College.	Gujarati
630	Gurunao Shamrao Salvi	20	Brahmin	Dharwar	Dharwar High School.	Kanarese
631	Kasanji Vershi Paka	20	Vania	Kapadvanj	Ahmedabad High School.	Gujarati
632	Sayad Fazilatunnisa Mahomed	25	Hindu (Lohana)	Hyderabad (Sind).	Hyderabad Mission School.	Sindhi
633	Ganpatbhai Bhaskar Phatak	29	Brahmin	Ratnagiri	Poona High School.	Marathi
634	F. Fernandes	34	Christian	Poona	Poona Mission School.	Portuguese
635	Pranshaw Pestonji Kapadia	21	Parsi	Broach	Broach High School.	Gujarati
636	Venkatrao Bapuji Kottur	25	Brahmin	Nargund (Dharwar).	Belgaum High School.	Kanarese
637	Hormasji Pestonji	17	Parsi	Dumas	J. J. Memorial Institution.	Gujarati
638	Narbheram Manekchand	22	Brahmin	Mota	Mota Gujarati School.	Gujarati
639	Ganpatram Rajaram	21	Brahmin	Ahmedabad	Ahmedabad Gujarati School.	Gujarati
640	Dhanvantram Narbheram Pandya.	21	Brahmin	Surat	Elphinstone College.	Gujarati
641	Hirabhai Jamnadas Mehta	22	Brahmin	Virsad	Elphinstone College.	Gujarati
642	Nowrozji Sheredji Khurshedji.	23	Parsi	Broach	Elphinstone College.	Gujarati

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
			Fourth Assistant, Branch School, No. II., Surat.	25 0 0	
English and a little of Sanskrit.	Matriculated 1871.	7 9 4			
English and Gujarati.	Matriculated 1867.	10 0 1	Fifth Assistant Master, Fort Branch School, Bombay.	35 0 0	
Gujarati.. ..	None ..	7 7 3	Head Master, Dakhal Gujarati School.	35 0 0	Paid from Baroda State.
English and Persian.	None ..	7 0 25	Head Master, Anglo-Vernacular School, Tarsia Adam.	35 0 0	Paid from Local Fund.
English	Matriculated 1871.	7 4 20	Fifth Assistant Master, Branch School, Surat.	35 0 0	
Urdu	None ..	7 8 0	Persian Teacher, Poona High School.	35 0 0	
None	Matriculated 1871.	6 10 26	English Teacher, Millegaum 2nd Grade Anglo-Vernacular School.	35 0 0	
English	Matriculated 1870.	6 6 0	Second Assistant Master, English School, Ratlam.	35 0 0	
English and Marathi.	None ..	6 5 27	English Clerk to the Educational Inspector, S. D.	35 0 0	From Kathiawad Educational Funds.
English and a little of Sanskrit.	Matriculated 1872.	5 4 0	Fifth Assistant Master, Junagad High School.	35 0 0	Paid from the Junagad State.
English	Matriculated 1872.	5 0 10	Head Master, Anglo-Vernacular School, Ajmi.	35 0 0	Paid from the Kolhapur State.
English	Matriculated 1872.	5 0 15	Head Master, Anglo-Vernacular School, Kigal.	35 0 0	Paid from the Kigal State.
English and Sanskrit.	Matriculated 1872.	6 6 15	Head Master, 2nd Grade School, Ichalkaranji.	35 0 0	Paid from Ichalkaranji State.
English	None ..	5 11 22	Head Master, Umarnati Gujarati School.	35 0 0	Paid from Baroda State.
English, Marathi and Hindustani.	Matriculated 1874.	5 2 9	Clerk, School of Industry, Dhulewdi.	35 0 0	
English and a little of Sanskrit.	Matriculated 1869.	4 11 7	Head Master, Patan Gujarati School.	35 0 0	Paid from Baroda State.
English, Persian, and Hindustani.	Matriculated 1874.	4 7 0	Sixth Assistant Master, High School, Sirkarjur.	35 0 0	
English and Sanskrit.	None ..	4 7 0	Sixth Clerk, Curator, Government Central Book Depot.	35 0 0	
English	None ..	4 6 0	Laboratory Assistant, Poona Civil Engineering College.	35 0 0	
English	Matriculated 1874.	4 5 15	Sanskrit Teacher, Broach High School.	35 0 0	
English and Gujarati.	Matriculated 1874.	4 2 18	Head Master, 2nd Grade School, Bagalkot.	35 0 0	
Hindustani ..	None ..	3 10 0	Museum Room Attendant, Grant Medical College.	35 0 0	
A little of English.	None ..	3 5 0	Head Master, Navsari Gujarati School.	35 0 0	Paid from Baroda State.
None	None ..	3 11 3	Head Master, Pilliger Gujarati School.	35 0 0	Paid from Baroda State.
English	Matriculated 1872.	3 4 15	Second Assistant Master, Branch School, No. I., Ahmedabad.	35 0 0	
English and Sanskrit.	Matriculated	3 4 3	Sub-Proctor, Sixth Assistant Master, Broach High School.	35 0 0	
English and Persian.	Matriculated	3 0 7	Sub-proctor, Persian Teacher, Broach High School.	35 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where educated.	Vernacular.
1	2	3	4	5	6	7
642	Ranji Sadashiv Oke	25	Brahmin ..	Agashi, Thana	Poona High School.	Marathi ..
643	Bhaskar Keshav Kelkar ..	31	Brahmin ..	Somathane ..	Poona School ..	Marathi ..
644	Bhaskhai Gangaram Pandya.	20	Brahmin ..	Ahmedabad ..	Ahmedabad Training College.	Gujarati ..
645	Dattatraya Bapuraoba Gosar.	44	Vania	Sikari	Poona Training College.	Gujarati ..
647	Abdul Jalil Khan Hasan Kelkar.	21	Mahomedan ..	Tala	Hyderabad Normal School.	Urdu ..
648	Muhammadsaheb valad Abdulsab Bhoi.	27	Muhamedan ..	Shikarpur ..	Sukkur Normal School.	Sindi ..
649	Bapalal Ambaram ..	23	Vania	Surat	Poona Training College.	Gujarati ..
650	Shaik Imam valad Shaik Mahamad.	43	Mahomedan ..	Ludiana ..	Ludiana School ..	Hindustani
651	Devgaonkar Udevrao Desai.	27	Brahmin ..	Mahuthe ..	Ahmednagar Training School.	Marathi ..
652	Indrabhan Waman Deshpande.	27	Brahmin ..	Bandha	Poona Training College.	Marathi ..
653	Vishnu Vasudeva Sathe ..	43	Brahmin ..	Patner	Government Vernacular School, Vinla.	Marathi ..
654	Vasudeo Ramchandra Pantvaidya.	42	Brahmin ..	Pithe	Ghaur Marathi School.	Marathi ..
655	Abdul Kavi Mahomed Ibrahim.	27	Mahomedan ..	Sehwan ..	Hyderabad Normal School.	Sindi ..
656	Trimbak Balkrishna Gurjar.	29	Brahmin ..	Nasik	Lukhi Government School.	Marathi ..
657	Shankarram Khandas Desai.	27	Brahmin ..	Dwarka	Dwarka Vernacular School No. 1.	Gujarati ..
658	Bapuji Govind Parke ..	31	Brahmin ..	Khandesh ..	Dhulia Marathi School.	Marathi ..
659	Vishnu Vasudeva Bhide ..	29	Brahmin ..	Poona	Poona High School.	Marathi ..
660	Balkrishna Shankar Bhide ..	30	Brahmin ..	Tasgaon ..	Dharwar Marathi School.	Marathi ..
661	Premchand Vithaldas Mehta.	29	Vania	Mahemdabad ..	Ahmedabad Training School.	Gujarati ..
662	Pandurang Chintaman Patwardhan.	28	Brahmin ..	Chikodi	Chikodi Vernacular School.	Gujarati ..
663	Vishnu Govind Abhyankar ..	43	Brahmin ..	Satvagiri ..	Poona Training College.	Marathi ..
664	Narayan Tukaji Nawadkar ..	26	Brahmin ..	Nasik	Nasik English School.	Marathi ..
665	Dhondhav Sharam Joshi ..	34	Brahmin ..	Poona	Poona Training College.	Marathi ..
666	Ramkrishna Vithal Kshirsagar.	32	Brahmin ..	Kurkumb ..	Poona Training College.	Marathi ..

Other Languages known.	University Standing, or Training College Certificate.	Period of service in the department.	Present Appointment.	Monthly Salary	Remarks.
8	9	10	11	12	13
		Y. m. d.		R. a. p.	
English and Sanskrit.	None	9 8 20	Fifth Assistant, Nasirnagar High school.	50 0 0	Paid from Public or Educational Funds.
None	None	21 4 22	Head Master, Vernacular School, Vidisha.	34 0 0	
None	Passed according to old system 1862.	17 10 1	Head Master, Vernacular School, Jaipur.	40 0 0	Public or Educational Fund.
English and Persian.	None	14 5 23	Head Master, 2nd Grade Anglo-Vernacular School, Kanchipuram.	50 0 0	
Persian, English, and a little of Arabic.	None	12 11 0	Head Master, Vernacular School, Gubbi, Tumkur.	34 0 0	
Persian and little of English.	None	12 7 24	Head Master, Vernacular School, Sangrur.	34 0 0	Paid from Local Fund.
None	None	11 8 0	Head Master, Vernacular School, No. IX., Surat.	34 0 0	Do.
Marathi	None	10 3 20	Gymnasia Master, Rajkoba High School, Kolhapur.	35 0 0	Paid from Kolhapur State.
None	2nd year 2nd Class Certificate, 1871.	6 3 14	Head Master, Vernacular School, Jambusar.	32 0 0	From Local Fund.
None	Training College Certificate.	6 3 29	Head Master, Ashta, No. I.	29 0 0	
None	None ..	18 9 15	Head Kardar, Deputy Educational Inspector, Ahmednagar.	25 2 0	
A little of English.	None ..	22 6 15	Head Master, Superior Vernacular School, Chalisgaon.	30 0 0	From Local Funds.
Persian and Urdu	None ..	21 0 11	Second Assistant Master, Anglo-Vernacular School, Ichalkaria.	30 0 0	Do.
None	None ..	20 3 9	Head Master, Superior Vernacular School, Wadi, No. II.	30 0 0	Do.
None	None ..	20 4 0	Head Master, Superior Vernacular School, Broach, No. II.	30 0 0	Do.
A little of English.	None ..	20 2 25	Head Master, Superior Vernacular School, Sidhlanda.	30 0 0	Do.
A little of English.	None ..	19 0 5	Head Master, Superior Vernacular School, Sadra.	30 0 0	Do.
None	None ..	17 4 0	Head Master, Superior Vernacular School, Sherkhi.	30 0 0	Do.
A little of English.	None ..	17 2 11	Head Master, Vernacular School, Sirsa.	30 0 0	Do.
None	None ..	14 9 0	Head Master, Vernacular School, Untad.	30 0 0	Do.
A little of English.	None ..	13 6 29	Head Master, Superior Vernacular School, Ghanghan.	30 0 0	Do.
English and Sanskrit.	None ..	14 5 6	Head Master, Superior Vernacular School, Abdu.	30 0 0	Do.
English and Sanskrit.	None ..	13 4 17	Head Master, 2nd Grade Anglo-Vernacular School, Sherpura.	30 0 0	Do.
English	None ..	10 11 26	Head Master, Superior Vernacular School, Chanderi	30 0 0	

No.	Name	Age	Caste or Religion	Birth-place	Where Educated.	Vernacular.
1	2	3	4	5	6	7
667	Abhyankar Ganesh Pandurang.	27	Brahmin ..	Ahmednagar ..	Poona High School.	Marathi ..
668	Bahmani Tukaji Patil ..	24	Brahmin ..	Jejuri	Poona Training College.	Marathi ..
669	Ganesh Dhondev Lele ..	34	Brahmin ..	Satara ..	Poona Training College.	Marathi ..
670	Harishankar Govindshankar Dadiya.	46	Brahmin ..	Bhadrano ..	Baroda Training School.	Gujarati ..
671	Harilal Chhotalal Bhat ..	32	Brahmin ..	Alina	Ahmedabad Training College.	Gujarati ..
672	Appaji Baji Joshi	35	Brahmin ..	Sawantwar ..	Poona Training College.	Marathi ..
673	Kalianji Chaturbhuj Thakur	27	Brahmin ..	Hallyana ..	Rajkot Training College.	Gujarati ..
674	Nandlal Manji Sinha ..	28	Vania	Rajkot	Rajkot High School.	Gujarati ..
675	Laxman Narayan Kelkar	28	Brahmin ..	Tolar	Poona Training College.	Marathi ..
676	Vishwant Ahaji Ambekar ..	34	Parbhu ..	Ambeakar ..	Poona Training College.	Marathi ..
677	Parashram Ahmadrao Ahaia.	26	Brahmin ..	Tapola	Poona Training College.	Marathi ..
678	Hari Keshav Vaidya	25	Brahmin ..	Chopdi	Dhulia Training College.	Marathi ..
679	Lakhoraj Mansukhram	29	Hindu Lohana	Hyderabad ..	Hyderabad High School.	Sindhi ..
680	Fakirana Ghamkhanmal ..	32	Hindu	Nakran	Hyderabad Normal School.	Sindhi ..
681	Narhar Raghunath Ambedkar.	32	Brahmin ..	Wai	Poona Training College.	Marathi ..
682	Chandbhai Gokuldas Vaidya.	30	Brahmin ..	Kalvadia ..	Ahmedabad Training College.	Gujarati ..
683	Bhaiji Baiji Kulkarni ..	55	Brahmin ..	Sawantwar ..	Dharwar School.	Kanarese ..
684	Chhabildas Harkhchand ..	40	Rajput ..	Dhanari ..	Dharwar School.	Kanarese ..
685	Balaji Ishwarchandra ..	49	Brahmin ..	Wai (Satara) ..	Poona Normals.	Marathi ..
686	Jiffaram Balkrishna Dandekar.	48	Brahmin ..	Nasik	Nasik School ..	Marathi ..
687	Ambedkar Ramaji Lakshaji	41	Brahmin ..	Lakshgiri ..	Ratnagiri Vernacular School.	Marathi ..
688	Vishnu Raghunath Patwardhan.	40	Brahmin ..	Poona	Satara Vernacular School.	Marathi ..
689	Vinayak Mahar Nadkarni	37	Parbhu ..	Nadkal	Khed School (Poona.)	Marathi ..

Chief Language Known.	University Standing or Training College Certificate.	Period of service in the Upper grade.	Present Appointment.	Monthly salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
Persian and little of Sanskrit, Hindustani, and Persian	Matriculated 1872.	9 11 7	Head Master, Vernacular School, Dhulia, No. I.	75 0 0	
English	Trained	8 9 12	Head Master, Superior Vernacular School, Dhulia.	75 0 0	
None	None	13 2 2	Head Master, 2nd Anglo-Vernacular School, Jalgaon, No. I.	60 0 0	
None	None	22 11 6	Head Master, Vernacular School, Jalalpur	32 0 0	From Local Funds.
None	Trained according to old system, 1866.	16 8 6	Head Master, Vernacular School No. II., Bhusaval.	43 0 0	Do.
English	None	14 4 6	Head Master, Vernacular School, Karjat.	75 0 0	
None	Set year of Chief's Own Classes.	6 5-22	Head Master, Vernacular School No. II., Vankaner.	25 0 0	From Kathiawar Educational Funds.
English and a little of Sanskrit.	None	4 9 25	Second Clerk, Deputy Educational Inspector, Kathiawar.	27 0 0	Do.
A little of Sanskrit.	None	6-10 17	Head Master, Vernacular School, Yeola, No. II.	31 12 0	From Local Funds.
None	None	13 2 26	Head Master, Vernacular School, Shegaon.	30 12 0	
English	Trained and certificated.	4 6 20	Head Master, Vernacular School, No. I., Pandharpur.	31 13 0	
None	None	16 8 15	Head Master, Vernacular School, Malegaon.	31 1 0	
English, English and Urdu.	None	10 4 0	Assistant Master, Anglo-Vernacular School, Umarkot.	61 9 4	Paid from Local Funds.
Persian	None	8 8 0	Head Master, Vernacular School, Dadd.	31 9 0	Do.
English	None	13 10 10	Head Master, Vernacular School, Karkam.	30 5 5	
A little of Hindi and Sanskrit.	Trained according to old system, 1866.	14 0 0	Head Master, Vernacular School, Rahtal.	40 5 0	From Local Funds.
Marathi	None	23 3 6	Head Master, Vernacular School, Rahetmur.	30 0 0	
Hindustani and Kathiawar.	None	24 8 0	Head Master, Vernacular School, Rau.	30 0 0	
Sanskrit	None	25 3 0	Sanskrit Teacher, Dhulia High School.	30 0 0	
A little of English	None	25 7 25	Head Master, Superior Vernacular School, Panchvata.	30 0 0	Do.
None	None	14 5 0	Head Master, Vernacular School, Malegaon.	35 0 0	Do.
None	None	13 9 24	Head Master, Vernacular School, Sopa.	30 0 0	
None	None	25 8 14	Head Master, Girls' School, Alibag.	30 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular
1	2	3	4	5	6	7
680	Shivaji Bahaji Patwajpe	42	Brahmin	Kolhapur	Sirur School	Marathi
681	Dwarkadas Kalidasan Mehta.	40	Vania	Surat	Surat Vernacular School.	Gujarati
682	Sahadeo Ramkrishna Sohoni.	50	Gaud Brahmin	Malegaon	Poona Modee School.	Marathi
683	Virajlal Govindjee Dave.	44	Brahmin	Jawath	Jawath Vernacular School.	Gujarati
684	Bala Mahadaji Sardesekar	41	Shenvi	Malvan	Malvan School	Marathi
685	Laxman Gopal Shenoi	24	Brahmin	Sirsi	Saraswati Vernacular School.	Marathi
686	Dhakji Dattatraya	41	Brahmin	Dharwar	Dharwar School.	Canarese
687	Rahadeo Vasnyek Joglekar.	39	Brahmin	Nira	Kolpin School	Marathi
688	Bai Tulsibaee Gorjar	46	Brahmin	Bhuvad	Bombay	Marathi
689	Vishwanath Venkaji Joshi	41	Brahmin	Kudal (Kolaba)	Dharwar Normal Class	Canarese
690	Govind Subharam Tambekar	37	Brahmin	Tambedi (Ratnagiri)	Malvan School	Marathi
691	Ahmed Kasamsha Hadi Fakirsha	43	Mahomedan	Sholapur	Sholapur Private School.	Hindi
692	Govind Hari Thatte	49	Brahmin	Chiplun	Chiplun Marathi School.	Marathi
693	Kaikhusji Ormuji Desai	32	Brahmin	Sarbhon (Surat)	Surbhon Vernacular School.	Gujarati
694	Ramchandra Hari Valsye	37	Brahmin	Lanjun	Ratnagiri School	Marathi
695	Balkrishna Dandeker	40	Gambogaur	Vinavli	Vinavli Vernacular School	Gujarati
696	Gurappa Appa Mutnali	42	Lingayat	Kilgal	Belgaum Training College.	Canarese
697	Narayanji Kunverji Desai	32	Brahmin	Sachkon	Surbhon Vernacular School.	Gujarati
698	Shridhar Harjivan Tarwadi	34	Brahmin	Kapadvanj	Pilajipur Vernacular School.	Gujarati
699	Laxman Gangadhar Phadke	25	Brahmin	Wai	Satara Vernacular School	Marathi
700	Virupaxgya Rudrappa Pujari.	32	Lingayat	Hulgur (Dharwar)	Belgaum Training School	Canarese
701	Antaji Ramchandra Kelkar	40	Brahmin	Ambegaon (Poona)	Ratnagiri School	Marathi
702	Nasarshah Abdul Ameed Kazi	27	Mahomedan	Malkhed	Hyderabad Normal School	Hindi
703	Keshav Vasnyek Khisle	49	Brahmin	Sholkot	Poona High School	Marathi
704	Ramakrsna Vyasp	39	Karada	Ammenabad	Ammenabad Training College	Canarese
705	Ganesh Bapu Athavale	41	Brahmin	Satara	Poona Normal School	Marathi

Other Languages known.	University Standing, or Technical College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
None	None	23 1 24	Head Master, Vernacular School, Nagpur.	50 0 0	
A little of Eng. lish.	None	23 1 27	Head Clerk, Deputy Educational Inspector, Ramtek Sub-division.	50 0 0	
English and Marathi.	None	23 2 13	Head Master, Superior Vernacular School, No. IV., Poona.	50 0 0	From Local Funds
None	None	23 6 2	Head Master, Vernacular School, Gadhe.	50 0 0	Do.
None	None	22 10 19	Head Master, Vernacular School, No. I., Akola.	50 0 0	Do
None	None	22 2 21	Head Master, Akola School, No. 2.	50 0 0	
Marathi ..	None	22 0 0	Head Master, Kanarese School No. 1., Dharwar.	50 0 0	
None	None	21 9 13	Head Master, Vernacular School, Murtizi.	50 0 0	
Marathi ..	None	21 4 21	Head Master, Vernacular School, Nagpur.	50 0 0	
Marathi ..	None	21 2 10	Head Master, Vernacular School, Ellichpur.	50 0 0	
Kanarese ..	None	20 1 0	Head Master, Vernacular School, Bijapur.	50 0 0	
Persian and Arabic.	None	20 0 21	Head Master, Vernacular School, No. II., Shikarpur.	50 0 0	Head Boys' Local Funds.
None	None	18 6 24	Marathi Accountant, Educational Inspector, North West Division.	50 0 0	
A little of English and Marathi.	None	18 1 15	Head Master, Vernacular School, Murtizi.	50 0 0	
None	None	18 2 0	Marathi Clerk, Deputy Educational Inspector, Ramtek Sub-division.	50 0 0	
A little of English and Marathi.	None	18 1 0	Head Master, Vernacular School, Mul.	50 0 0	Do.
Marathi	None	18 0 0	Head Master, Kanarese School, Chikali.	50 0 0	
None	None	17 11 20	Head Master, Vernacular School, No. VIII., Surat.	50 0 0	From Local Funds
A little of English.	None	17 6 27	Head Master, Vernacular School, Pakhigot.	50 0 0	Pilanyar Master.
None	None	17 6 0	First Clerk to the Deputy Educational Inspector, Akkam Subdivision.	50 0 0	
Marathi	None	17 5 0	Head Master, Vernacular School, Shegaon.	50 0 0	
Kanarese ..	None	17 5 0	Head Master, Vernacular School, Gadag-Sur.	50 0 0	
Persian and Hindustani.	None	16 6 27	Head Master, Vernacular School, Chanpur.	50 0 0	Part from Local Funds
English and Marathi.	None	16 7 0	Head Master, Superior Vernacular School, Yeotmal.	50 0 0	From local Funds
A little of English.	None	16 5 10	Clerk, Deputy Educational Inspector, Surat.	50 0 0	
Kanarese ..	None	16 6 18	Head Master, Vernacular School, No. I., Gadag.	50 0	Do.

No.	Name	Age	Caste or Religion	Birth-place	Where Educated.	Vernacular
1	2	3	4	5	6	7
716	Vishvadas Gurudas Kishandas.	37	Hindu Lohana	Naughara	Hyderabad Normal School.	Sindhi
717	Narayan Dhondhar Gore	37	Brahmin	Ratnagiri	Ratnagiri School	Marathi
718	Abdul Hakim Khansahib Kazi.	37	Mahomedan	Sukkurpur	Hyderabad Normal School	Sindhi
719	Dhanjibhai Pestanji Pakka	31	Parsi	Surat	Surat No. 2. English School	Gujarati
720	Vishwanath Vaidyanath Shastri.	39	Brahmin	Surat	Private School	Gujarati
721	Jankrishna Manoharkar Vyas.	33	Brahmin	Ahmedabad	Ahmedabad High School.	Gujarati
722	Raghunath Yashwant Dandekar.	31	Brahmin	Poona	Poona School No. II.	Marathi
723	Bhaskar Ganesh Gandhrajkar.	33	Brahmin	Dabhoi	Poona Training College.	Marathi
724	Pestanji Jamshedji Mandlekar	33	Parsi	Mandvi (Surat)	Elphinstone High School.	Gujarati
725	Hargovan Gopalbhai Desai	30	Brahmin	Ojhat	Elphinstone High School.	Gujarati
726	Nana Ramchandra Modakashar.	44	Vaidya	Vengurla (Ratnagiri).	Vengurla Vernacular School	Marathi
727	Dada Chhabildas Desai.	43	Brahmin	Thasra	Government Vernacular School Sojatri.	Gujarati
728	Bhagu Bapuji Bhagvalkar	33	Brahmin	Khoral	Poona Model School.	Marathi
729	Ramkrishna Hargovan Desai.	24	Brahmin	Dabhoi	Baroda and Sharmalal High School.	Gujarati
730	Mahadeo Dattatraya Bhat.	36	Brahmin	Poona	Poona Training College.	Marathi
731	Dattodhar Vyankatji Pawar.	30	Brahmin	Nagargaon	Panchgani	Marathi
732	Allahdi Khan Faiz valad Khan Bahar.	35	Mahomedan	Of Kutch	Sukkur Normal School.	Sindhi
733	Ganesh Gulbrishna Dalvi	33	Gaud Brahmin	Sankhe?	Dharwar English School.	Marathi
734	Gajanji Saburao Devikar	39	Gaud Brahmin	Dharwar	Dharwar English School.	Marathi
735	Gopal Vishnu Apte	32	Brahmin	Sangli	Sangli High School.	Marathi
736	Govind Narsinha Mulbagal	30	Brahmin	Gokak	Dharwar Train Class.	Canarese
737	Gajanan Keroba	32	Parbhu	Bombay	Elphinstone High School.	Marathi
738	Vishvanath Vasudeva Sankhe.	31	Gaud Brahmin	Kudalgeri (Belgaum)	Belgaum School.	Marathi
739	Khanchand Assanmal Bhatija	36	Hindu Gaud	Hyderabad	Hyderabad Normal School.	Sindhi

Other Languages known.	University standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
Gujarati ...	None ...	16 9 27	Head Master, Vernacular School, Kalhatti.	30 0 0	Paid from Local Funds.
Khanarese ...	None ...	16 3 0	Head Master, Khanarese School, Dali.	30 0 0	Do.
Vernacular Arabic.	None ...	16 1 17	Head Master, Vernacular School, Annigeri.	30 0 0	Do.
English and Persian.	None ...	16 1 0	Third Assistant Master, Petit Fundagan English School, Surat.	30 0 0	Paid from Town Funds.
Sanskrit and Marathi.	None ...	15 8 25	Sanskrit Teacher, Surat High School.	30 0 0	
English	None ...	15 0 27	Third Assistant Master, Branch School, No. II., Ahmedabad.	30 0 0	
Kanarese ...	None ...	14 11 24	Head Master, Vernacular School Shirsigi	30 0 0	
English	Telugu ...	14 7 19	Head Master, 2nd Grade School, Umta.	30 0 0	
English	None ...	14 7 11	Fourth Assistant Master, 1st Grade Anglo-Vernacular Gokuldas Tejpal School, Bombay.	80 0 0	
English	None ...	14 7 9	Fifth Assistant Master, 1st Grade Anglo-Vernacular Gokuldas Tejpal School, Bombay.	80 0 0	
A little of English	None ...	14 6 14	Head Master, Vernacular School, Lokarshall, Bombay	30 0 0	
A little of English	None ...	14 5 10	Marathi Assistant, Deputy Inspector, Khandesh.		
English	None ...	14 4 0	Head Master, Vernacular School, Thirkwar.	30 0 0	
English	None ...	14 3 0	Clerk, Deputy Educational Inspector, Kaira.	87 0 0	
A little of English	None ...	14 4 5	Head Master, Superior Vernacular, Sirsar.	30 0 0	
Sindi	None ...	14 0 29	Head Master, Vernacular School, Umr.	30 0 0	
Persian	None ...	14 0 19	Head Master, Vernacular School, Tando Mir Ghulam Hutterahan.	30 0 0	Paid from Local Funds.
English and Kanarese.	None ...	14 0 0	Head Master, 2nd Grade Anglo-Vernacular School, Hullyal.	30 0 0	
Kanarese and English.	None ...	14 0 0	Head Master, 2nd Grade Anglo-Vernacular School, Ankola.	30 0 0	
English and Kanarese.	None ...	14 0 0	Head Master, Upper School No. I.	30 0 0	
Sanskrit and Marathi.	None ...	13 7 4	Entrance Teacher, Ahmednagar High School.	30 0 0	
Hindustani ...	None ...	13 7 0	Assistant Clerk, Grant Medical College.	30 0 0	
Kanarese ...	None ...	13 7 0	Clerk, Deputy Educational Inspector's Office, Kaira.	30 0 0	
Persian	None ...	13 6 28	Head Master, Vernacular School No. I., Hyderabad.	30 0 0	

No.	Name.	Age.	Caste or Religion.	Birthplace.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
740	Raghunath Bapuji Kolaskar	35	Brahmin	Chiplunj	Poona Marathi School.	Marathi
741	Ambaram Meyaramkar	42	Brahmin	Surat	Surat Gujarati School.	Gujarati
742	Vasudeva Atmaji Canepas	34	Good Brahmin	Honawar	Honawar School.	Konkani
743	Sadasiva Bhatraya Halkhar	36	Brahmin	Halkhar	Honawar School.	Kanarese
744	Jeevanram Dalsikram Patel	31	Kachi	Kaisrgaum	Ahmedabad Training College.	Gujarati
745	Krishnaji Mahadeva Shenvi	35	Maratha	Malvan	Elphinstone Institution.	Marathi
746	Balaji Gorhul Kasar	34	Brahmin	Kolhapur	Poona Training College.	Marathi
747	Pranlaul Balkrishna Gokhli	49	Brahmin	Gokhlhoor	Dharwar and Kolhapur schools.	Marathi
748	Jamshedji Gorlalee Jarbeni	31	Parsi	Broach	Broach High School.	Gujarati
749	Bapudeokra Bapuji Chan Gorekar.	34	Brahmin	Wadi	Private tuition.	Marathi
750	Mahomed Ali Abdul Hak Kazi.	50	Mahomedan	Kasba Lakmen	Sikkar Normal School.	Bengali
751	Ramsahai Ruri Babu	32	Good Brahmin	Shahjpur, Bengal	Sylhet High School.	Bengali
752	Jayshankar Pranjeevan Acharya.	34	Brahmin	Limbdi	Ahmedabad Training College.	Gujarati
753	Balkrishna Dalvees Kalay	41	Brahmin	Poona	Poona School	Marathi
754	Haji Ahmed Tayab Kazi	37	Mahomedan	Hubli	Hyderabad Normal School.	Kanarese
755	Govind Shankar Bapat	35	Brahmin	Pedan	Poona Training College.	Marathi
756	Bhagwanlal Harjibhai Vakil	32	Kunbi	Ahmedabad	Ahmedabad Training School.	Gujarati
757	Lakshmanrayan Parashram Samarthaji.	29	Brahmin	Nadiad	Ahmedabad High School.	Gujarati
758	Wahidbaig Mahammadi Parugal Kadi.	30	Mahomedan	Jalgaon	Sikkar Normal School.	Marathi
759	Dhirchand Tribhowan Bhagwani.	31	Hindu Kumar	Bhuj	Hyderabad Normal School.	Marathi
760	Ramkrishna Vasudev Talekar	34	Brahmin	Kolhapur	Poona Training College.	Marathi
761	Vishwanath Ganesh Pillai	31	Keralee	Calicut	Belgaum Training College.	Marathi

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly salary	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
Nil	None	13 8 12	Kárkún, Educational Inspector, Central Circle's Office	30 0 0	
None	Nil	13 5 0	Head Master, Fort School, No. 1, Bombay.	50 0 0	
English and Kánarese.	None	13 1 15	Head Master, Anglo-Vernacular School, Honawar.	30 0 0	
English and Kánarese.	None	13 1 10	Head Master, Anglo-Vernacular School, Bankápur.	30 0 0	
None	None	13 0 10	Head Master, Vernacular School, Sirsi.	40 0 0	Promotional Funds.
English	None	13 0 0	Head Master, Anglo-Vernacular School, Alibág	50 0 0	From Miscellaneous Funds. Served eight months in the Accountant-General's Office.
None	None	12 10 19	Head Master, Superior Vernacular School, Nasirabad	50 0 0	
English, Kánarese and Sanskrit.	None	12 9 24	Clerk, Deputy Educational Inspector, Kaládgi.	25 0 0	
English, Marathi, Urdu, and a little of Sanskrit.	None	12 8 20	Clerk, Deputy Educational Inspector, Mahi Kantha and Palanpur.	30 0 0	From Mahi Kántha and Palanpur Funds.
English and Sanskrit.	None	12 8 15	Sanskrit Teacher, Násik High School.	50 0 0	
Persian	None	12 7 0	Head Master, Vernacular School, Ghatki.	30 0 0	
English and Kánarese	None	12 6 0	First Assistant, 2nd Grade School, Athni.	30 0 0	
None	Trained according to old system 1862.	12 4 0	Head Master, Vernacular School, No. II., Dhárwár.	30 0 0	Collectorate Educational Funds.
English	None	12 4 0	Fourth Clerk, Director of Public Instruction's Office.	30 0 0	
Persian	None	12 4 0	Head Master, Vernacular school, Hubli.	25 0 0	
English and Sanskrit.	None	12 0 4	Sanskrit Teacher, Ahmednagar High School.	25 0 0	
None	Trained according to old system 1860.	11 8 16	Head Master, Vernacular School, No. II., Ahmednagar.	30 0 0	From Provincial Funds.
English	Matriculated 1867.	11 4 21	Second Assistant Master, Branch School, No. II., Ahmednagar.	20 0 0	
Persian	None	11 4 11	First Assistant, Vernacular School, Sirúr.	30 0 0	
Persian	None	11 3 29	Head Master, Vernacular School, Pirpur Sultani.	40 0 0	
A little of Sanskrit.	None	11 2 0	Head Master, Superior Vernacular School, Ahmednagar.	35 0 0	Do.
Kánarese	None	11 0 4	Head Master, Sakhmandalgi School No. 1.	30 0 0	

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
762	Mahomed Ibrahim valad Amin.	29	Mahomedan	Dalod-dang	Sukkur Normal School.	Sindhi
763	Papa Shankar Lele	32	Brahmin	Nachane	Satchelet High School.	Marathi
764	Govind Kashinath Pawar	32	Maharata	Kumalkarwaji	Kolhapur High School.	Marathi
765	Jamsing Phernelar	40	Hindu	Shikarpur	Shikarpur Private School.	Sindhi
766	Vishnu Sakwant Lonokare	46	Brahmin	Chikkodiwadi	Government Vernacular School, Shikarpur.	Marathi
767	Motidas Paragji Desai	23	Brahmin	Kathgam	Surat Training College.	Gujarati
768	Abdul Karim valad Tayeb Kazi.	20	Mahomedan	Malari	Hyderabad Normal School.	Sindhi
769	Bajubhai B. Bhat	20	Brahmin	Ahmedabad	Ahmedabad High School.	Gujarati
770	Dikshitni Umgram Pitambar.	29	Bhoogya	Vishal, Nagar	Ahmedabad High School.	Gujarati
771	Jesangbai Ammat Joshi	20	Brahmin	Thegaon	Poona Training College.	Marathi
772	Ramanarayan Fakirbhai	28	Brahmin	Kathgam	Surat High School.	Gujarati
773	Lakshmi Harjivan Tarvadi	20	Brahmin	Kapadvanj	Ahmedabad High School.	Gujarati
774	Atma Shastri Athekar	47	Brahmin	Sangmal (Dhatwar.)	Nargund School.	Marathi
775	Raghunath Shankar Marora-kar.	21	Desai Brahmin	Malwan	Karwadwar High School.	Marathi
776	Shankarlal Jekalbhai Bhat	24	Brahmin	Narsenpur	Rajkot Training School.	Gujarati
777	Shivram Parvat Aher	27	Brahmin	Aher	Belgaum Training College.	Canarese
778	Ramchandra Narayan Dabh	27	Brahmin	Jodhar	Dabar English School.	Gujarati
779	Narayan Shatroo Degaonkar	46	Brahmin	Wai	Private Tuition	Marathi
780	Govind Wamon Phadke	24	Brahmin	Kolhapur	Kagal School	Marathi
781	Shripad Amrut Chatre	28	Brahmin	Miraj	Belgaum High School	Marathi
782	Keshow Malcolm Vaidya	30	Brahmin	Thegaon	Poona, Bala Gokhale School.	Marathi
783	Keshiprasad Ramprasad Desai.	20	Brahmin	Olpad	Surat High School.	Gujarati
784	Bhikaji Shanker Dandekar	28	Brahmin	Thana	Poona Training College.	Marathi
785	Narayan Sadashiva Kulkarni	44	Brahmin	Kanagaon	Elphinstone College.	Marathi
786	Raghunath Sakharam Bu-ley	20	Brahmin	Malsagiri	Elphinstone High School.	Marathi
787	Bhikaji Dhondera Nigudkar	23	Brahmin	Khanvali (Kon-dhal)	Bala Gokhale School, Poona	Marathi

Other Language known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Classes.
8	9	10	11	12	13
		T. m. d.		Rs. a. p.	
Persian and Arabic.	None	11 1 24	Head Master, Vernacular School, Hotgi.	30 0 0	From Local Funds.
English	Matriculated 1866.	10 9 7	Eighth Assistant Master, Rajkot High School.	30 0 0	
English	None	10 8 14	Tutor to the sons of the Chief of Torgal.	30 0 0	From Tergal State.
Gurmukhi	None	10 7 6	Head Master, Hindu Girls' School, No. 1, Shikarpur.	30 0 0	From Local Funds.
Kánarese	None	9 9 11	First Clerk to the Deputy Educational Inspector, Sholápur.	30 0 0	
English	None	9 7 0	Head Master, Vernacular School, Alibag.	30 0 0	From Local Funds.
Persian	None	9 6 22	Head Master, Vernacular School, Pir.	30 0 0	
English	Matriculated 1870.	9 6 15	Seventh Assistant Master, Broach High School.	30 0 0	
English	Matriculated 1874.	9 6 7	Sub-proctor, Seventh Assistant Master, Kathiawar High School.	30 0 0	From Bhávnagar Educational Funds.
English	None	9 4 0	Head Master, Girgaum Vernacular School, Bombay.	30 0 0	
English	None	9 3 23	Head Master, Vernacular School, Lhasbil.	30 0 0	From Kathiawar Educational Funds.
A Study of English	None	9 3 6	Head Master, Vernacular School, Dholera.	30 0 0	From Local Funds.
Sanskrit and Kannarese.	None	9 3 0	Sanskrit Teacher, Dharwar High School.	30 0 0	
English and Sanskrit.	None	9 2 0	Head Master, Marathi School, Karachee.	30 0 0	
English	None	9 1 21	Head Master, Vernacular School, Narsinger.	30 0 0	From Kolhapur Fund.
Marathi	25 Rs. Certificate.	8 10 0	Head Master, Vernacular School, Kirkee.	30 0 0	
English	None	8 9 28	Sanskrit Teacher, High School, Bhávnagar.	30 0 0	From Kathiawar Educational Funds.
Sanskrit and equal Gujarati.	None	8 9 9	Sanskrit Tutor, Sikara High School.	30 0 0	
Sanskrit and a year of English.	None	8 7 15	Sanskrit Teacher, 1st Grade Anglo-Vernacular School, Sholápur.	31 0 0	
English, Sanskrit, and Kannarese.	Matriculated 1870.	8 6 29	Fifth Assistant Master, Belgaum High School.	30 0 0	
English	None	8 5 23	Acting Head Master, Baroda Marathi School, No. 11.	80 0 0	From Baroda State.
English	None	8 4 24	Clerk, Deputy Educational Inspector, Ahmedabad.	30 0 0	
English	None	8 4 15	Head Master, Superior Vernacular School, Kopergaon.	30 0 0	From Local Funds.
English and Sanskrit.	Matriculated 1868.	8 4 14	Sanskrit Teacher, 1st Grade Anglo-Vernacular School, Kalyan.	30 0 0	
English	Matriculated 1870.	8 3 0	Fifth Assistant Master, Surat High School.	30 0 0	
English	Matriculated 1869.	8 0 12	First Assistant, 1st Grade Anglo-Vernacular School, Jamkhandi.	30 0 0	From Jamkhandi State.

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
789	Dattatreya Bapuji Bhide	32	Brahmin	Belgaum	Belgaum	Marathi
790	Damodhal Nagji Sukli	30	Brahmin	Wadhwan	Rajkot Training School.	Gujarati
791	Narayan Balaji Rasal	28	Brahmin	Kolhapur	Kolhapur High School.	Marathi
792	Gopal Shrinivas Tarpe	28	Brahmin	Kurundi	Belgaum	Marathi
793	Yashvant Govind Parkhe	32	Brahmin	Khandesh	Dhulia High School.	Marathi
794	Ramchandra Jagannath Gokhale	30	Brahmin	Poona	Deccan College	Marathi
795	Bhikhji Ramchandra Bagalkar.	28	Vaisya	Bagalkot	Belgaum High School.	Kanarese
796	Vasudeva Vinayak Kotandkar.	27	Brahmin	Wai	Ahmednagar High School.	Marathi
797	Khushal Pestonjee Godhadia	47	Vania	Rajkot	Rajkot High School.	Gujarati
798	Shrinivas Govind Bhanap	27	Brahmin	Nagar	Deccan College	Marathi
799	Jivanlal Lal (wife of Lalu Mathur).	35	Vania	Broach	Khorvad Gujarati School.	Gujarati
800	Ambu Khatri bin Sadashiv Bhat.	40	Brahmin	Shirali	Shirali	Marathi
801	Khushalrai bin Bajatram Srivastri	28	Brahmin	Aurangabad	Baroda	Marathi
802	Mahomed Hajib	28	Arab	Zabid	Zabid School	Arabic
803	Umedram Dalabhram Joshi	47	Brahmin	Poona	Sanskrit and Gujarati Pundit.	Gujarati
804	Shivshankar Dhirji Raval	26	Brahmin	Dholka	Rajkot Normal Class.	Gujarati
805	Ramrao Ganesh Purohit	37	Brahmin	Poona	Poona Civil Engineering College	Marathi
806	Ramprasad Krishnaprasad Pande.	29	Kanoja brahmin.	Nagkot	Belgaum High School.	Kanarese
807	Madhavji Gheliram Bavaji	26	Brahmin	Kathiawar	Rajkot Training School.	Gujarati
808	Sorabjee Byramji Dockat	29	Parsi	Surat	Surat English School.	Gujarati
809	Bhimaji Shivaji Nagle	29	Brahmin	Dharwar	Belgaum High School.	Kanarese
810	Krishna Ganesh Jahagir	27	Brahmin	Chikodi (Belgaum).	Belgaum High School.	Kanarese

Other Languages known.	University Matricn. or Teaching College Certificate.	Period of service in the Department	Present Appointment	Monthly Salary.	Remarks
9	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
		0 0 7	Taken on the Death of Waitman.	80 0 0	Died from Waitman Duffegan.
English, Khanwar, and Hindustani.	None	7 9 17	Head Master, Vernacular School, Mall.	30 0 0	Kathiawar Educational Fund.
None	2nd Year 2nd Class Certificate.	7 8 5	Fourth Assistant Master, Rajkumar High School, Rajkot.	80 0 0	From Kathiawar state.
English and Marathi.	Matriculated 1871.	7 8 0	Clerk to the Deputy Educational Inspector, Belgaum.	25 0 0	
English and Marathi.	None	7 7 20	Third Assistant Master, 1st Grade Anglo-Vernacular School, Ahmednagar.	35 0 0	
English	Matriculated 1870.	7 3 9	Fourteenth Assistant Master, Poona High School.	25 0 0	
English and Sanskrit.	Matriculated 1867.	7 3 9	Sixth Assistant Master, Dharwar High School.	30 0 0	
English, Marathi and a little of Sanskrit.	Matriculated 1871.	7 4 6	Fifth Assistant Master, Ahmednagar High School.	30 0 0	On one year's leave without pay.
English and Sanskrit.	Matriculated 1871.	7 4 0	First Assistant Master, English School, Morvi.	80 0 0	From Kathiawar Educational Funds.
English, ...	Matriculated 1870.	7 3 5	Second Assistant Master, 1st Grade Anglo-Vernacular (Gujarati) school, Broach.	30 0 0	
English and Sanskrit.	Matriculated 1869.	6 10 0	Head Mistress, Charni Road Girls School, Bombay.	25 0 0	
None	None ..	6 10 7	Head Master, Tyabarana Shastra Shala, Baroda.	30 0 0	From Baroda State.
Sanskrit	None ..	6 10 0	Head Master, Nyayashastra Shala, Baroda.	30 0 0	Do.
Sanskrit	None ..	6 10 5	Second Assistant Master, Ashe English School.	30 0 0	
None	None ..	6 9 23	Head Master, Jotish Shala, Baroda.	35 0 0	Do.
Sanskrit and Marathi.	None ..	6 8 25	Head Master, Vernacular School, No. 1., Limbdi.	25 0 0	Kathiawar Educational Fund.
None	Trained as reading to old system.	6 8 21	Senior Assistant Teacher, Poona Civil Engineering College.	25 0 0	
None	None ..	6 8 9	Second Assistant, Khanwar Sib. Belgaum High School.	20 0 0	
English, Urdu, and Marathi.	Matriculated 1872.	6 7 6	Head Master, Vernacular School, Jalarabad.	30 0 0	Do.
None	2nd Year 1st Class Certificate.	6 5 11	Persian Teacher, Surat High School.	50 0 0	
English, Persian, Hindustani, and a little of Arabic.	None	6 4 21	Ninth Assistant and 8th person, Eighth Assistant, Dharwar High School.	30 0 0	
English, Marathi and a little of Telugu.	Matriculated 1872.	6 4 20	Seventh Assistant Master, Dharwar High School.	30 0 0	
English, Marathi and a little of Sanskrit.	Matriculated 1872.				

No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
810	Gajanan Vinayak Bhide	32	Brahmin	Thana	Elphinstone High School.	Marathi
811	Saleh bin Ibrahim	27	Arab	Sohareh	Sohareh School	Arabic
812	Ekroji Maneckji Nicholson	26	Parsi	Bombay	Elphinstone High school.	Gujarati
813	Mangi Virji Shah	26	Brahmin	Kathiawar	Elphinstone High School.	Gujarati
814	Hari Pursot Lad	26	Vania	Diva	Elphinstone College.	Marathi
815	Hari Vithal Kelkar	25	Brahmin	Ratnagiri	Belgaum High School.	Marathi
816	Yeshvant Balkrishna Dalvi	28	Gouli Brahmin	Panchkhal	Dharwar High School.	Marathi
817	Morarjee Gattadharan Meghaye	27	Brahmin	Vengurla	Ratnagiri and Bhavnagar High Schools.	Marathi
818	Gurujibhai Bhowanigirgosai Alur	27	Parvati	Alur	Dharwar High School.	Hindustani
819	Maghribi Motilal Bachoob	23	Brahmin	Ahmedabad	Ahmedabad High School.	Gujarati
820	Chotalal Manekram	22	Vania	Ahmedabad	Ahmedabad Training College	Gujarati
821	Narayan Yeshwanth Pathardikar	30	Brahmin	Kalyan	Deccan College	Marathi
822	Jehangir H. Kanga	28	Parsi	Bombay	Elphinstone High School.	Gujarati
823	Ramchandra Vithal Kelkar	25	Brahmin	Sampgaon	Belgaum and Dharwar High Schools.	Kanarese
824	Ruknuji Anant Dongare	25	Brahmin	Shikarpur	Belgaum High School.	Kanarese
825	Parbhuram Mulji Shah	24	Brahmin	Bardoli	Surat High School.	Gujarati
826	Jagannathshankar Nayanshankar Trivedi	27	Brahmin	Nadiad	Elphinstone College.	Gujarati
827	Sakarlal Yajnikshankar Oza	25	Brahmin	Bhavnagar	Bombay St. Xavier's College.	Gujarati
828	Pranshankar Mahipatram Dave	25	Kshatri	Kaira	Elphinstone College.	Gujarati
829	Bhaskar Narayn Ingal Dalvai	28	Brahmin	Dharwar	Belgaum High School.	Kanarese
830	Mangesh Lakshmanrao Bhatkar	23	Saraswat	Bhatkal	St. Xavier's School, Bombay.	Konkani
831	J. M. Gomes	29	Christian	Goa	Robert Money Institution and Sir J. J. School of Art.	Portuguese
832	Govind Appaji Sahasrabudhe	25	Brahmin	Ratnagiri	Deccan College	Marathi
833	Dinanath Daji Bhuta	25	Brahmin	Poona	Belgaum High School	Marathi

Other Languages known.	University Standing, or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	REMARKS.
8	9	10	11	12	13
		Y. M. D.		Rs. A. P.	
English	Matriculated 1869.	6 4 6	Fourth Assistant Master, Jagannath Sankarset 1st Grade Anglo-Vernacular School, Bombay.	50 0 0	
None	None ..	6 4 0	Third Assistant Master, Aden English School.	80 0 0	
English	Matriculated 1872.	4 3 13	Ninth Assistant Master, Fort Branch School, Bombay.	30 0 0	
English	Matriculated 1872.	5 0 25	Seventh Assist. Master, Fort Branch School, Bombay.	35 0 0	
English and Sanskrit.	Matriculated, 1871.	5 2 29	Eighth Assistant Master, Patan High School.	35 0 0	
English and Kanarese.	Matriculated, 1873.	5 1 5	Second Assistant, 1st Grade Anglo-Vernacular School, Belgaum.	75 0 0	
English and Kanarese.	Matriculated 1873.	5 0 9	Head Master, Anglo-Vernacular school, Nipani	75 0 0	
English, Gujarati and a little of Sanskrit.	None ..	4 11 5	Sub-pro-tem. Second Assistant Master, 1st Grade Anglo-Vernacular School, Bhavnagar.	50 0 0	From Kathiawar Educational Fund.
English, Kanarese & Marathi.	Matriculated 1872.	4 7 6	Eighth Assistant Master, Dharwar High School.	30 0 0	
English	Matriculated 1874.	4 6 19	First Assistant Master, 2nd Grade Anglo-Vernacular School, Dholka.	20 0 0	
None	None ..	4 4 26	Accountant, Director of Vernacular Instruction's Office, Baroda.	30 0 0	From Baroda State.
English and Sanskrit.	Matriculated 1870.	4 4 18	Seventh Clerk, Cashier, Government Central Book Depôt.	30 0 0	
English and Persian.	Matriculated 1874.	4 4 0	Sixth Assistant, Gokuldas Tejpal School, Bombay.	20 0 0	
English, Marathi and a little of Sanskrit.	Matriculated 1873.	4 3 0	Third Clerk to the Educational Inspector, Southern Division's Office.	30 0 0	
English and Marathi.	Matriculated 1874.	4 1 25	Fifth Assistant, English School, Karwar.	30 0 0	
English	None ..	4 0 13	Head Master of the Talukdari School, Sadra.	50 0 0	From Sadra Educational Funds.
English and Sanskrit.	Matriculated 1871.	3 11 15	Sixth Assistant Master, Nadiad High School.	30 0 0	
English	None ..	3 11 7	Second Assistant, English School, Bhavnagar.	50 0 0	
English	Matriculated 1873.	3 11 0	First Assistant Master Anglo-Vernacular School, Wadhwan.	30 0 0	
English, Marathi and Sanskrit.	Matriculated 1872.	3 0 0	Head Master, Vernacular School, Malkapur.	30 0 0	Paid from Malkapur State.
English, Marathi and Kanarese.	Matriculated 1872.	3 0 24	First Assistant, 1st Grade Anglo-Vernacular School, Hubli.	80 0 0	On sick leave six (three months
English	None ..	3 8 21	Pupil Teacher of the Sir J. J. School of Art.	40 0 0	
English and Sanskrit.	Matriculated 1873.	3 7 4	Sanskrit and English Teacher, 1st Grade Anglo-Vernacular Schools, Panthampur.	30 0 0	
English and Kanarese.	Matriculated 1873.	3 4 0	Head Clerk, Deputy Educational Inspector, Dharwar's Office.	30 0 0	Served in the Mulki-i State for 2-14

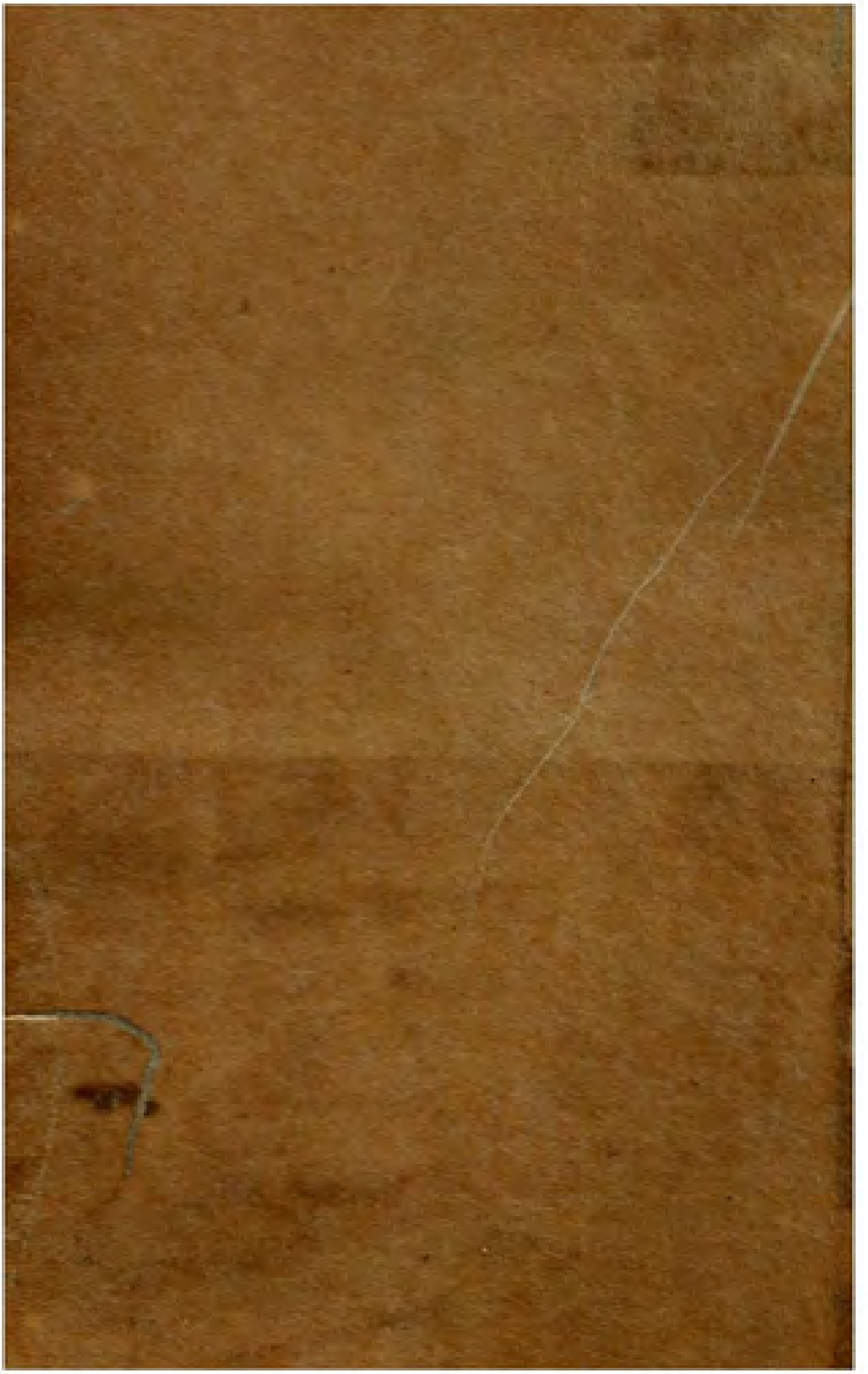
No.	Name.	Age.	Caste or Religion.	Birth-place.	Where Educated.	Vernacular.
1	2	3	4	5	6	7
834	Jibhai Gokuldas ..	23	Vania	Thásra ..	Ahmedabad Training College.	Gujarati
835	Ghulam Ghaghrooni	25	Amil ..	Hyderabad ..	Hyderabad Mussulman School.	Sindi
836	Wamdeo Pandurang Vidwa	26	Brahmin	Vir ..	Ratnagiri High School.	Marathi
837	Pandurang Anant Saraf	28	Good Brahmin	Shahapur, Belgaum	Belgaum High School.	Marathi
838	Bhaidasbhai Talakshi	29	Vania	Umreth ..	Umreth ..	Gujarati
839	Purushottam Purushandhu Sathe.	27	Brahmin	Poona ..	Poona High School.	Marathi
840	Dajiaji Baghunathji Desai	41	Brahmin	Sarbhon ..	Surat	Gujarati
842	Kashowlal Prajaram ..	30	Brahmin	Mehmadabad	Mehmadabad ..	Gujarati
843	Jasangbhai Talakchand	25	Vania ..	Anklesh ..	Ahmedabad Training College.	Gujarati
845	Pandurang Vaman Tarkhade	27	Brahmin	Rahimatpur ..	Deccan College ..	Marathi
846	Kahanbhai Harbhai Desai	23	Brahmin	Dejadra ..	Ahmedabad Training College.	Gujarati
848	Anagram Bhowanishankar ..	29	Brahmin	Umreth ..	Umreth	Gujarati
849	Dinkar Ganesh Kelkar ..	43	Brahmin ..	Poona ..	Poona College ..	Marathi
847	Arjun Mahadjibhai ..	23	Kshatri ..	Chital ..	Ahmedabad Training College.	Gujarati
850	Barjorji Sorabji Chinai ..	26	Parsi ..	Bombay ..	Elphinstone High School.	Gujarati
851	Vithaji Paragji Vyas ..	24	Brahmin	Derodal ..	Kaira High School.	Gujarati
852	Dadaram Tanaji Pawar ..	28	Maratha ..	Sirgh ..	Kolhapur High School.	Marathi
853	Tanaji Ramaraj Gaikwad	22	Kshatri ..	Satara ..	Elphinstone College.	Gujarati
857	Ghulam Nungi ..	28	Amil ..	Hyderabad (Sind).	Hyderabad Mussulman School.	Sindhi
858	Ghulam Khudabad Dogra	25	Sindi ..	Shikarpur ..	Shikarpur High School.	Sindhi
854	Rahimullah Fakhl Abdul Latif Mussulman.	21	Mahomedan	Nagpur ..	Nagpur School ..	Hindustani
855	Hukmaldas Lakhoomal Kessoo.	22	Hindu Amil ..	Lárkhana ..	Shikarpur High School.	Sindhi

Other Languages known.	University Matriculation or Training College Certificate.	Period of Service in the Department.	Present Appointment.	Monthly Salary.	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
A little of English and Sanskrit.	None ..	3 5 20	Head Master, Pathid Gujarati School.	20 0 0	Paid from Baroda State.
English and Gujarati.	Matriculated 1875.	3 2 18	Acting Eighth Assistant Master, N. J. High School, Karrachee.	30 0 0	
English and Sanskrit.	Matriculated	3 2 12	Fifth Assistant Master, Jagannath Sankersett 1st Grade Anglo-Vernacular School, Bombay.	35 0 0	
English and Kannada.	Matriculated	3 2 11	Third Assistant, 1st Grade Anglo-Vernacular School, Belgaum.	30 0 0	
English	None ..	3 1 20	Head Master, Pia Gujarati School.	30 0 0	Paid from Baroda State.
English	None ..	3 0 20	Clerk to the Poona High School.	30 0 0	
English	None ..	3 0 13	Head Clerk, Educational Inspector's Office, Baroda State.	40 0 0	Do.
English	None ..	2 11 14	Head Master, Pimpar Gujarati School.	30 0 0	Do.
A little of English.	1st Year First Class Certificate 1876.	2 6 28	Head Master, Vernacular School, Anand.	20 0 0	From Local Fund.
English and Sanskrit.	Matriculated 1872.	2 5 20	Acting Fifth Assistant Master, English School, Thana.	30 0 0	
None	2nd Year Second Class Certificate, 1877.	2 0 15	Head Master, Vernacular School, No. 2, Surat.	30 0 0	Do.
English	None ..	2 0 0	Head Master, Khandia Gujarati School.	30 0 0	From Baroda State.
English	None ..	2 8 14	Assistant to English Accountant, Educational Inspector, Central Division's Office.	20 0 0	
None	2nd year Second Class Certificate, 1874.	2 7 26	Head Master, Vernacular School, Mahodha.	20 0 0	From Kathiawar Educational Fund.
English	Matriculated 1874.	2 7 25	Second Assistant Master, Chandanwadi School, Bombay.	30 0 0	Do.
English	Matriculated 1870.	2 7 9	First Assistant Anglo-Vernacular School, Gondal.	30 0 0	Do.
English and Sanskrit.	Matriculated 1874.	2 7 5	First Assistant, Anglo-Vernacular school, Sangli.	30 0 0	Pub. from Sangli State.
English	Matriculated 1873.	2 4 13	Sixth Assistant Master Nasirnagar High School.	30 0 0	Paid from Talukdars' Educational Fund.
English and Hindustani.	Matriculated 1873.	2 4 3	Assistant Master, Anglo-Vernacular School, Tatta.	30 0 0	
English, Persian, and Gujarati.	Matriculated 1875.	2 2 17	Sub. pro-tem. Seventh Assistant, N. J. High School, Karrachee.	30 0 0	
Persian and Marathi.	None ..	2 1	Head Master, Hirdaskool School, Hidwadi.	30 0 0	
English and Hindustani.	Matriculated 1870.	1 9 9	Sub. pro-tem. Second Assistant, Anglo-Vernacular School, Sukkur.	30 0 0	

No.	Name	Age	Caste or Religion.	Birth-place	Where Educated.	Vernacular.
1	2	3	4	5	6	7
856	Hanumant Sanjiva Sagun	21	Brahmin	Bägalkot	Dhárwár High School.	Kánarese
857	Jhumandas Udhardas Chandanmalani.	22	Hindu Amil	Sehwan Tatta	Shikar High School.	Sindhi
858	Bapuji Dattatraya Bamde	23	Brahmin	Tasgal	Deccan College	Marathi
859	Bhagvandas Ramchandlal Pandya.	24	Brahmin	Ahmedabad	Elphinstone College.	Gujarati
860	Yagesh Ramchandra Tambe	21	Brahmin	Kolwal	Belgaum High School.	Marathi
861	Mahadev Narayan Vaidya	20	Gaud Brahmin	Ayihra (Ratnágiri)	Ratnágiri High School.	Marathi
862	Sikhanath Bapu Kanitkar	22	Brahmin	Sángli	Sángli English School.	Marathi
863	Yavajlal Kalidas Shastri	25	Brahmin	Mohalaj	Private Tuition.	Gujarati
864	Shankarsankar Umiyashankar Tarvadi.	23	Brahmin	Wadhwán	Ahmedabad Training College.	Gujarati
865	Babaji Raghunath Tirodkar	24	Gaud Brahmin	Tiroda	Elphinstone College.	Marathi
866	Wamun Bhikaji Pachorre	23	Brahmin	Gohágar	Elphinstone College.	Marathi
867	Bapu Abaji Khare	21	Brahmin	Satára	Deccan College	Marathi

Other Languages known.	University Standing or Training College Certificate.	Period of service in the Department.	Present Appointment.	Monthly Salary	Remarks.
8	9	10	11	12	13
		Y. m. d.		Rs. a. p.	
English, Sanskrit and Marathi.	Matriculated 1877.	4 0 25	First Assistant, 1st Grade Anglo-Vernacular School, Satara.	30 0 0	Field from Satara Taluka.
English and Hindustani.	Matriculated 1873.	1 5 25	Sub pro-tem. Assistant Master, Anglo-Vernacular School, Tasla.	20 0 0	
English . .	Matriculated 1878.	1 4 28	Seventh Assistant, Kolhapur High School.	25 0 0	Field from Kolhapur State.
English and Sanskrit.	Matriculated 1874.	1 4 12	Fifth Assistant Master, High School, Nadiad.	30 0 0	
Sanskrit, English and Kanarese.	Matriculated 1877.	1 4 0	Head Master, Vernacular School, Shirhatti.	20 0 0	Field from Belgaum District.
English	Matriculated 1872.	1 3 0	Head Master, 2nd Grade Anglo-Vernacular school, Dongri, Bombay.	20 0 0	
English . .	Matriculated.	1 3 27	Head Master, Vernacular School, Mangalvedha.	25 0 0	Do.
Sanskrit . .	None.	0 9 12	Teacher of Poetry, Training College, Ahmedabad.	20 0 0	
None	2nd year First Class Certificate 1878.	0 8 15	Head Master, Vernacular School, Jaitya.	30 0 0	
English and Sanskrit.	Matriculated 1875.	0 7 21	First Clerk, Deputy Educational Inspector, Thana sub-division.	20 0 0	
English and Sanskrit.	F. E. A., 1876	0 4 21	Sixteenth Assistant Master, Poona High school.	30 0 0	
English and Sanskrit.	F. E. A.	0 4 21	Sub. pro-tem. Fifth Assistant Master, High School, Ahmednagar.	30 0 0	

K. M. CHATFIELD,
Director of Public Instruction.



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Bhide, K. Y.	713
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* Surname not known.

S. A. denotes separate appointments.

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Dave, V. G.	683
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Deobrat, R. Y.	729
Desai, N. P.	332
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Desai, B. G.	800
Desai, D. M.	272
Desai, D. U.	621
Desai, G. G.	155
Desai, G. H.	779
Desai, G. S.	2
Desai, H. G.	726
Desai, K. E.	301
Desai, K. J.	91
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Desai, P. N.	604
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Desai, V. M.	849
Desai, D. P.	797
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Desai, A. S. P.	658
Desai, K. D.	288
Desai, S. M.	792
Desai, D. R.	849
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* Surname not known. S. A. Senator superior appointment.

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Dixit, S. N.	778
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Gandhi, A. M.	673
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Gokale, P. V.	814
Golay, N. K.	110
Gomes, L. M.	681
Gondalekar, B. G.	775
Ghulablal Gopal*	854
Gore, U. A.	725
Gore, Y. C.	600
Gore, Y. K.	37
Gothalia, K. P.	788
Govindshankar Prabhashankar*	817
Gowan, T. B.	624
Gray, W.	265 A.
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Gune, N. D.	717
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Gurjar, R. Y.	688
Gusar, D. B.	666

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* Surname not known.

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Joshi, B. G.	279
Joshi, B. J.	278
Joshi, B. K.	260
Joshi, D. N.	192
Joshi, D. S.	495
Joshi, D. V.	605
Joshi, G. G.	581
Joshi, G. K.	537
Joshi, J. A.	771
Joshi, K. L.	571
Joshi, N. D.	496
Joshi, N. D.	587
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Kazi, A. H. K.	708
Kazi, M. A. A. H.	718
Kazi, W. M. P.	728
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Kelkar, S. S.	479
Kelkar, V. D.	528
Kelkar, L. N.	573
Kelkar, H. V.	615
Kelkar, D. M.	614
Keikar, D. G.	465
Kerur, B. F.	598
Kenkar, H. B.	41
Keshavbhi Purajaram	85
Keshavaram Fakirbhai*	172
Khadabadi, G. L.	250
Khambatta, R. L.	214
Khambata, F. N.	724
Khanji Trikamji*	629
Khanam, U. J. S.	382
Khandekar, T. G.	106
Khare, H. L.	288
Khary, S. S.	552
Khare, L. A.	247
Khokhwala, M. S.	242
Khujiya, F. M.	40
Kielhorn, F.	98 A.
Kilta, S. P.	28
Kirkham, T. B.	148 A.
Kirvekar, S. S.	180
Kirpalani, S. P.	572
Kirpaland, M. V.	80
Kirpekar, H. N.	257
Kirtane, K. W.	60
Kirtane, M. S.	404
Kirtane, T. S.	88
Kirtane, M. W.	210
Kishanlal, T. C.	736
Khur, S. B.	559
Knapp, W. F.	248 A.
Kokatnjinarle, B. J.	157
Kolatkar, G. S.	580
Kolatkar, L. S.	731
Kolatkar, K. P.	140
Kolgaonkar, B. M.	614
Kolhatkar, K. N.	574
Komkar, N. B.	250
Koppikar, D. N.	460
Kothare, V. M.	260
Kshirsagar, K. V.	404

* Surname not known.

E. A. denotes supreme appointments

K—concluded. No.

Kulkarni, N. S. 748
Kulkarni, G. H. 581
Kunte, A. M. 59
Kunte, M. M. .. .. 485 A.

L

Lad, J. R. 426
Lad, H. P. 814
Ladha Jethabhai* 572
Lagdate, R. H. 113
Laiwala, G. M. 26
Lakhendle, V. D. 354
Lalchand, M. T. H. 457
Lalvani, I. C. 533
Lankshah, M. A. 533
Lawyer, M. R. 44
Lekhraja Mahendas* 679
Leith, E. F. .. .. .. 238 A.
Lele, B. S. 748
Lele, G. D. 899
Lewis, H. W. .. .. .. *
Limaye, G. R. 602
Limaye, G. V. 59
Limaye, J. R. 464
Limaye, N. V. 93
Limaye, S. R. 579
Limaye, L. R. 145
Limaye, D. R. 687
Lingit, F. M. 808
Lobokare, V. B. 746
Lowdie, W. R. 533
Lord, H. N. 749
Lyon, L. P. .. .. .. 398 A.

M

Macmillar, M. .. .. .. 178 A.
Macnaghten, C. .. .. .. 78 A.
Macnachie, G. A. .. .. .. 368 A.
Madar, J. F. 204
Madar, K. J. 540
Madeshwar, N. B. 729
Mahadevia, M. J. 414
Mahadevi, J. S. 311
Mahajan, N. S. 647
Mahipatram Rupram* .. .. .. 598 A.
Mahomed, Hajib* 601
Mahomed Abdulla* 79
Majmudar, H. L. 274
Majmudar, N. R. 226
Makhdum, M. A. H. M. S. 74
Makhija, K. A. 130
Malkani, C. A. 115
Mama, N. R. 127
Mangrulkar, R. R. 779
Manekshaw, B. M. 619
Manekshaw, V. J. 129
Manekram Pranji 714
Mant, C., Major .. .. .. 398 A.
Marathe, A. T. 670
Marathe, R. D. 630
Marphatia, P. H. 595
Master, F. T. 168
Master, S. R. 179
Mavalvkar, R. R. 173
Mehdia, S. H. 859
Mehrotra, B. M. 449

M—concluded. No.

Mehrotra, R. N. 625
Mehrotra, B. N. 661
Mehrotra, D. V. 254
Mehrotra, G. D. 265
Mehrotra, G. M. 270
Mehrotra, K. G. 108
Mehrotra, P. D. 442
Mehrotra, P. G. 265
Mehrotra, P. V. 661
Mehrotra, T. D. 18
Mehrotra, T. N. 446
Mehrotra, U. S. 2
Mehrotra, V. V. 124
Mehrotra, P. J. 242
Mehrotra, R. D. 626
Mehrotra, J. J. 441
Melvanal, S. T. 422
Mendonsa, F. S. 324
Mendale, B. G. 411
Menly, N. C. 304
Miles, Miss F. 260
Mirajkar, R. S. 259
Mirza Bairat* .. .. .. 118 A.
Mirza Ismail* 171
Mirza, S. A. 21
Mistri, E. J. 617
Mistri, P. A. 70
Mitchell, Mrs. M. B. 2
Molak, B. F. 88
Molak, J. B. 88
Molak, W. A. .. .. .. 6 A.
Modi, C. H. 61
Modi, H. H. 685
Modi, P. D. 302
Moghaye, M. G. 617
Mogre, H. R. 223
Mohare, R. V. 727
Mohidin, S. Y. S. 251
Mone, B. S. 42
Monteiro, N. E. 471
Morris, Miss H. 140
Motiram Rajaram* 88
Moos, N. A. 95
Mudliar, S. S. 324
Mudliar, C. A. 291
Mujumdar, G. N. 693
Mulay, G. R. 225
Mulay, R. R. 726
Mullegol, D. N. 756
Mulokar, V. S. 562
Mulvi, S. A. F. 64
Mulvi, A. M. 145
Munshi, N. S. 188
Munshi, U. K. M. 195
Munshi, B. V. A. J. 683
Murarekram Pranji* 724
Murzola, G. A. 396

N

Nabar, B. N. 178
Nalkar, V. M. 680
Nagarkar, D. N. .. .. .. 498 A.
Nagindas, Manchand* 681
Naik, G. G. 337
Naik, F. V. 333
Naik, R. G. 78
Nanoti, A. M. 147

* Surname not known. A. A. denotes supplementary appointments.

N—concluded.

	No.
Nangrihi, M. B.	326
Nanavati, G. L.	304
Narayana, C. D.	566
Narayan, Keshav*	737
Narayan Raghunath*	141
Narbheram Manishankar*	638
Nargol, R. S.	237
Narmadashankar Kamalashankar*	302
Nath, T. G.	1
Navalkar, S. T.	147
Nene, G. R.	864
Nicholson, K. M.	36
Nigudkar, B. D.	619
Nilkanth, H. S.	787
Nimbkar, B. B.	411

O

	No.
Oke, A. K.	439
Oke, G. V.	191
Oke, V. K.	831
Oke, R. G.	296
Oke, R. S.	643
Oliver, J.	528 A.
Oliveiron, E. G.	68 A.
Om, B. P.	216
Om, [illegible]	347
Om, [illegible]	484
Om, [illegible]	439
Om, S. V.	827
Om, C. L.	29

P

	No.
Pathrita, M. K.	776
Pagat, R. M.	68
Pakhankar, K. B.	884
Pake, M. V.	681
Panalkar, G. B.	578
Panda, R. K.	805
Pandit, A. N.	360
Pandit, B. P.	24
Pandit, B. R.	332
Pandit, G. G.	116
Pandit, G. N.	379
Pandrolkar, G. V.	143
Pandya, G. G.	682
Pandya, K. G.	438
Pandya, L. A.	439
Pandya, N. B.	578
Pandya, S. L.	42
Pandya, V. D.	561
Pandya, P. G.	505
Pandya, D. N.	645
Pandya, H. G.	645
Pandya, K. H.	146
Pandya, C. B.	454
Pandya, N. G.	521
Pandya, K. M.	491
Pandya, H. G.	679
Pange, M. G.	804
Panke, S. T.	886
Parekh, K. M.	889
Parekh, R. B.	650
Parekh, G. D.	13
Parekh, L. V.	60

P—concluded.

	No.
Parekh, S. B.	9
Parkar, A. S.	681
Parkhe, T. S.	886
Parkhe, W. B.	452
Parekh, G. K.	138
Parekh, H. K.	452
Parekh, J. A.	418
Parekh, J. B.	914
Parekh, K. P.	437
Parekh, M. A.	484
Parekh, M. N.	143
Parke, E. G.	658
Parkhe, Y. G.	199
Parmar, F. C.	662
Patankar, S. B.	441
Patankar, K. N.	378
Patel, B. F.	91
Patel, E. R.	365
Patel, H. P.	378
Patel, M. V.	380
Patel, B. D.	371
Patel, M. V.	417
Patel, J. D.	744
Patel, M. P.	330
Pathak, G. V.	373
Pathak, H. V.	386
Pathak, T. S.	389 A.
Pathak, K. B.	83
Pathak, C. M.	853
Patkar, A. V.	149
Pathar, V. R.	865
Patre, S. N.	686
Patwardhan, G. B.	68
Patwardhan, N. V.	831
Patwardhan, S. V.	5
Patwardhan, H. R.	536
Patwardhan, V. B.	444
Patwardhan, R. M.	682
Patwardhan, A. G.	687
Pavli, S. M.	615
Perry, N. M.	335
Pawar, G. R.	764
Pawar, S. Y.	830
Peters, J. M.	294
Petersen, P.	139 A.
Phadke, G. B.	670
Phadke, G. W.	781
Phadke, L. G.	709
Phadnis, G. K.	462
Pingle, W. S.	344
Pandalik, G. M.	537
Pumjari, G. R.	715
Purandare, G. M.	108
Purani, A. M.	329
Purani, B. N.	177

R

	No.
Rajaratnalingam, E. M.	117
Rahim, H. L.	830
Ramchandani, M. H.	871
Raje, G. A.	870
Ramchandra Maheshwar*	338
Ramjivandas, P. A.	6
Ramdas Phavalas*	870
Ranade, R. D.	76
Ranavikar, A. A.	870
Rangnekar, N. A.	331
	329

* Surname not known.

A. A. denotes separate application.

R—concluded.

	No.
Raval, N. G.	790
Ratnagar, N. J.	174
Raval, P. M.	458
Raval, P. S.	562
Raval, S. S.	903
Raval, M. G.	894
Revanddappa, Bhandappa	190
Rebello, F.	540
Rege, V. S.	954
Rege, N. M.	790
Ridri, H. A.	649
Ridri, K. S.	471
Roda, S. K.	841
Rongo, N. M.	477
Rojal, R.	27
Rukadikar, G. H.	597
Russell, W. A.	88, A

S

Sabdey, G. K.	69
Salvie, R. V.	248
Salvie Y. G.	420
Sadashagani, T. K.	597
Sagari, H. S.	856
Saharia, V. G.	251
Sahasrabudhe, B. S.	99
Sahasrabudhe, B. S.	604
Sahasrabudhe, G. A.	833
Sahasrabudhe, G. D.	619
Sahasrabudhe, K. E.	438
Sahharam Arjun*	978 A.
Saleh bin Ibrahim*	811
Samant, K. M.	171
Samil, F. Z.	259
Sane, P. B.	13
Sane, S. N.	138
Sane, S. R.	830
Sanjana, E. J.	98
Sanjana, P. E.	149
Sanjgiri, N. G.	504
Sarlajane, W. P.	116
Saral, P. A.	837
Sathe, K. K.	263
Sathe, S. M.	138
Sathe, S. P.	340
Sathe, S. V.	17
Sathe, G. M.	79
Sathe, S. K.	490
Sathe, V. V.	553
Sathe, P. R.	920
Sathe, G. H.	930
Savadi, S. R.	141
Savanur, N. A.	32
Sawant, K. M.	743
Sawarganvkar, T. J.	837
Sayani, A. M.	42
Scorgie, J.	158 A.
Selby, F. G.	148 A.
Sepahbandari, F. G.	351
Seth, N. V.	830
Seth, B. K.	559
Sethna, R. S.	119
Shaha, A. D.	187
Shaha, G. R.	838
Shaha, I. V.	266
Shaha, M. A.	868
Shaha, N. M.	674
Shaha, P. K.	614

S—concluded.

	No.
Shaha, S. V.	441
Shaha, M. N.	306
Shahdadpuri, A. R.	785
Shaik, Heyat*	192
Shaik Imam vilai Shaik Mahomed*	639
Shastri, A. R.	886
Shastri, G. G.	78
Shastri, Y. G.	264
Shastri, V. V.	726
Shastri, V. R.	837
Shende, R. R.	433
Shirsve, M. V.	591
Shirgi, S. T.	668
Shivabhaskar Lathakrao*	540
Shrimbhar, T. N.	459
Shukla, D. D.	813
Sohlar, E. R.	310
Sohoni, A. V.	150
Sohoni, R. R.	868
Sohoni, V. R.	19
Sohoni, M. A.	433
Sorabji, Miss P.	141
Sorabji, Miss M.	143
Sudame, P. S.	474
Sukal, H. M.	205
Sukal, J. K.	229
Sukal, P. M.	456
Sukal, S. D.	474
Sukal, P. T.	788
Sukal, D. G.	788
Sukhabhkar, S. B.	888
Sule, S. B.	129
Supre, S. B.	787
Surti, M. J.	286
Sutaria, D. F.	810
Sutaria, L. M.	877
Syed, A. M. S.	396

T

Tahilram Thanthlandas*	680
Talati, E. D.	14
Talati, H. P.	624
Talekar, K. V.	760
Tasker, S. S.	918 A.
Taipan, A. K. F. V. K.	751
Tambe, S. S.	888
Tambekar, B. A.	270
Tambekar, G. S.	740
Tankasale, P. V.	648
Tange, G. S.	294
Tarachand Shankrata*	168
Tarkhadkar, D. K.	89
Tarkhadkar, M. A.	897 A.
Tarvali A. P.	760
Tarvali, B. M.	649
Tarvali, C. B.	934
Tarvali, G. A.	114
Tarvali, H. S.	658
Tarvali, J. M.	899
Tarvali, L. G.	892
Tarvali, L. H.	771
Tarvali, M. G.	240
Tarvali, P. U.	446
Tarvali, A. H.	224
Tarvali, K. P.	774
Tarvali, N. H.	749
Tarvali, R. U.	304

* Surname not known.

A. A. denotes supreme appointments.

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T—concluded.

	No.
Terry, G. W.	465.A.
Thakar, A. M.	602
Thakar, G. P.	398
Thaker, C. S.	197
Thathe, G. H.	702
Thaker, K. C.	673
Tikhe, G. S.	487
Tilak, N. P.	178
Tilo, T. S.	547
Tirodkar, S. R.	888

U

Ukyati, S. M.	734
Uttamsal, Nitrambhai*	203
Urwalla, J. N.	608.A.

V

Vaidya, H. K.	674
Vaidya, K. M.	762
Vaidya, S. M.	443
Vaidya, S. M.	736
Vaidya, B. H.	734
Vaidya, B. J.	304
Vaidya, B. K.	450
Vaidya, G. B.	681
Vaidya, V. S.	683
Vaidya, W. W.	305
Vajeram Prabhudhasker*	319
Vakil, E. J.	191
Valee, M. R.	590
Vania, H. B.	179
Vasi, R. S.	7
Vatavala, M. A.	139
Vaswani, J. T.	778
Tatcha, H. M.	284
Vaze, G. K.	390
Vad, D. D.	115
Velavala, J. V.	363
Velkarkar, H. M.	389

V—concluded.

	No.
Venkatrao Anacharya Kanyanacharya*	861
Verde, G. V.	125
Verde, M. N.	801
Vijalpara, B. H.	755
Vijaya, H. M.	784
Vijiaraji, G. K.	7
Vimavala, M. K.	139
Virbhadrappa Anhemappa*	4
Vikrar, W. P.	696
Vora, D. K.	261
Vora, M. D.	439
Vyas, D. V.	61
Vyas, H. H.	718
Vyas, J. P.	451
Vyas, J. M.	731
Vyas, L. L.	271
Vyas, S. L.	443
Vyas, J. P.	547
Vyas, T. P.	449

W

Wadekar, K. C.	864
Waddington, Colonel T.	28.A
Walia, M. N.	64
Wadke, N. B.	265
Wagle, N. S.	617
Wakharkar, B. B.	338.A
Wamanacharya Jadhkar*	4
Waradeo, W. A.	306
Waswani, J. N.	17
Webb, W.	208.A
Wordsworth, W.	28.A

Y

Yadgiri, S. V.	677
Yevalekar, G. G.	672
Yogi, N. D.	182

Z

Zalakikar, E.	192
Zalakikar, W. C.	474

* Surname not known. S. A. denotes superior appointments.